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The Internal AUDITOR

JOURNAL OF THE INSTITUTE OF INTERNAL AUDITORS

DECEMBER 1957

AUDITING FOR OPERATIONS — E. F. RATLIFF

SEVENTH INTERNATIONAL CONGRESS OF ACCOUNTANTS

REPORT — W. R. DAVIES

PAPERS — L. G. MacPHERSON — E. SINNOTT

MANAGEMENT LOOKS AT YOU — WILLIAM BAMERT

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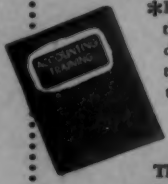

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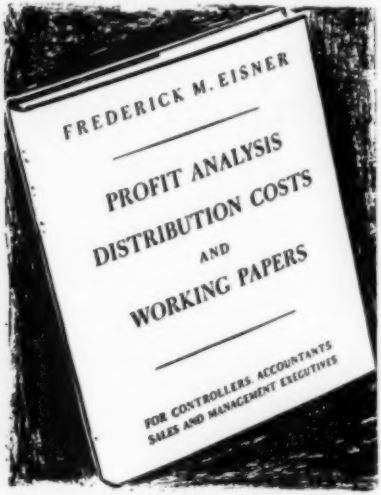

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Vol. 14 No. 4

CONTENTS

The President's Page 5
Auditing for Operations ..... by E. F. Ratliff 6
The Seventh International Congress of Accountants ..... by W. R. Davies 13
The Internal Auditor—A Canadian Viewpoint ..... by L. G. MacPherson 15
The Internal Auditor—A British Viewpoint ..... by E. Sinnott 23
Management Looks at You ..... by William Bamert 33
How Can the Auditor Assist Management in Developing Its Use of Operations Research? ..... by Bart C. Kelleher 43
Working Paper Techniques ..... by Richard Carroll 52
The Round Table ..... edited by Donald T. Barber 59
Student's Department ..... edited by Charles A. Windt 64
The Place of the Internal Auditing Department in the Company Organization ..... by Ronald Woods 65
The Application of Internal Checks ..... by Merle R. Jordan 68
Auditing Case Studies—"The Necessity and Purpose of Confirming Accounts Receivable" 71
Readings of Interest to Internal Auditors 76
Employment 80

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THE INTERNAL AUDITOR. Owner: The Institute of Internal Auditors, Inc. Publication Office: 701 Pine Street, Burlington, Vt. Editorial Office: 120 Wall Street, New York 5, N. Y. Publisher: The Institute of Internal Auditors, Inc. Re-entered as second class matter, at the Post Office, Burlington, Vt., March 17, 1956, under the act of August 24, 1913.

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Advertising rate card upon application. Issued quarterly on the first day of March, June, September and December; $1.00 a copy. Subscription $4.00 per year. The Editorial Committee invites you to submit papers for publication.

Expressions of opinions in The Internal Auditor by the editor and contributors are their own and are not necessarily endorsed by The Institute of Internal Auditors. Articles are selected for their general interest to those in the internal auditing field.

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The Internal Auditor

JOURNAL OF
THE INSTITUTE OF INTERNAL AUDITORS

VOL. 14 DECEMBER, 1957 No. 4

THE PRESIDENT'S PAGE

BY this time you have all read my brief report in the November News Bulletin of my attendance at the Seventh International Congress of Accountants at Amsterdam, and of my visits to the London and Scandinavian Chapters. I think the subject may deserve a little more to be said from a different point of view.

In the first place, in addressing these chapters I found a great desire to know more about internal auditing as it is practiced in the United States and Canada. The question and answer periods in both cases revealed good thinking on the part of our European members and an enthusiasm to learn more about auditing for management in the operating departments. Perhaps they are overly concerned with what should be the relationship between the internal and external auditors. But I rather think that this may be more of a problem over there than it is here. Let there be no mistake about it, but that these are strong chapters in every sense of the word. Their programs and leadership are very good, and I believe that it is only a question of time when, with these chapters as a nucleus, we shall have an expanding membership in the European Region.

I believe that nothing but good can come from our participation in the deliberations of the Seventh International Congress of Accountants at Amsterdam. Here was an opportunity for THE INSTITUTE to exercise its influence and to express its ideas to an audience of accountants from many parts of the globe. I am persuaded to think that we were successful.

W. R. DAVIES

AUDITING FOR OPERATIONS*

By E. F. RATLIFF

Assistant Treasurer, Eli Lilly and Company

The scope and horizon of internal auditing is immeasurably broadened as its practice extends into operations. How can it best serve business, for this is the ultimate test of its inherent value and its ability to advance as a profession? Give the operating people "what they want, what they need and what they like," advises the author of this article, and he expounds on this somewhat unconventional approach to indicate some sound and profitable guides to make operational auditing a more valuable tool for management.

INTRODUCTION

IN the field of internal auditing a backward glance shows remarkable progress. Perhaps the most astounding feature of this forward movement has been the rapidity with which internal auditing has developed. We can take justifiable pride in the accomplishments of the past decade. Our practices have followed the pattern of growth in business; but if there is one settled factor, it is that we must continue to adapt ourselves to the needs of our companies, and be most obliging in our desire to provide the fullest measure of service.

The qualities we believe to be necessary in our profession include technical competence and the intelligence and judgment required on an individual basis, that will enable an auditor, as an individual, to accept fully his responsibilities and to recognize and share in the complexities of the modern business enterprises.

Many of you internal auditors have accepted your obligations and in so doing have advanced materially not only your individual progress, but, more important, you have provided the firm foundation that rests today under this new and expanding profession.

During the past three or four years I have been quite conscious of the increasing attention in accounting publications that deal with the internal auditor and operations audits. Such attention is deserved, and it points up the increasing importance of the constructive side of internal auditing. And

* Delivered in the Technical Sessions at the Northeastern Regional Conference.

yet, our most recent survey of internal auditing departments did not acknowledge that they were doing any auditing of the major operational components. That may be true insofar as the financial aspects of auditing are concerned, but in many audits the line is crossed into operations by the very performance of the necessary verification aspects. It is most difficult actually to separate the financial aspects of internal auditing from the operating aspects.

BENEFIT TO OPERATIONS

Let us recognize that in an activity such as internal auditing, the services rendered must be to some degree an interrelationship between the financial aspects on the one hand, and operational aspects on the other. Our job is to make that interrelationship as beneficial to operating personnel as it is and has been to financial personnel.

And how can that be accomplished? It is easy! Give them what they want, what they need, and what they like!

You do not have any trouble selling what people want. So perhaps we should take a look at what the operating sections of our business would like, and see if through our services we are able to provide some assistance.

Some time ago I came back into the financial end of our business, after spending two years in operations. That time in operations was good for me because I found out something about the problems and the needs of the people who actually run the business. I found out that they are extremely anxious to perform efficiently. They are interested in company relationships, both within and without. They are concerned with people and policies. They want to operate at a profit. In short, they are interested in the success of the company. And they are just as interested in having good operating procedures as the accountants and auditors are.

I suspect that there are few internal auditing departments today that do not participate in periodic checking or verification of inventory. In manufacturing concerns particularly, an important segment of that inventory may be in process. There is a great deal more that an auditor can do in addition to determining an accurate figure for financial reporting. Of course, the basis for the audit in the first place stems from a verification need, and this is important. But while you are verifying inventory, work for the operating people too. Let them feel that you are also on their team.

If there are inventory differences, it may be affecting their incentive bonus. They may not be getting credit for what they do! If a departmental clerk has gotten some paper work out of phase, he may need a little friendly help rather than cold criticism in a published report.

OPPORTUNITY FOR APPRAISAL

Many facets of the business are exposed in a physical inventory that provide the alert auditor with a wonderful opportunity to exercise one of his most important functions—that of appraisal. Those in operations will welcome, during and particularly upon the completion of the audit, a sincere and mature appraisal on such matters as the use of warehouse space, observations on stock conditions, evidence of pilferage, duplication of paper work, personnel attitudes and so on.

A good appraisal is something they are interested in because they are responsible for it. It is also something they may have no other way of obtaining. The public accountants can't provide such an appraisal because they do not have the detailed knowledge of the interworkings of the company. Here, then, is a fine opportunity to work for operations.

In the operation of almost any size business today there are, as you know, veritable mountains of paper work. There are reports, memorandums, letters, minutes, and work sheets all designed for and presumed to be fulfilling a necessary part of the business of keeping people informed. Much of this paper work is involved in one way or another with operations. A substantial portion emanates from the accounting and financial end of the business for the primary purpose of providing information to those who must use it for planning operations.

An operating executive, above all, must exercise the art of planning. With certain assets at his disposal, he, of course, wants to know how well he has been able to utilize them, and what operating margin he has been able to obtain. That is important; but if you will recall your own experiences, I believe you will agree that the operating executive spends a great deal more time in trying to determine where to go than he does in worrying over where he has been. It is that part of his job that presents the real challenge, and it is in that direction that operating people will enthusiastically accept aid and assistance.

How can the internal auditor render service in this important area? There are many ways. Some opportunities will be directly connected with

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Mr. Ratliff is a member of THE INSTITUTE OF INTERNAL AUDITORS *and was International President in 1956-57.*

financial and accounting matters; others will be a pure sharing proposition. In most instances there will be required on the part of the internal auditor the exercise of intelligent judgment and an understanding of the viewpoint of those responsible for operations.

One of the most important tasks that face an operating executive (or any executive for that matter) is the proper placement and training of people. The single most important phase of planning is to have the right person in the right job. Appraisal of people and jobs is necessarily a continuous part of an operating executive's job of forward planning.

Here is an opportunity for you! It is an absolute impossibility to perform a comprehensive audit of a function, whether it is a department, a branch, a warehouse, an office, or an operating subsidiary, without some appraisal of the people. Yet, this is a subject too infrequently brought into audit reports. And I am not too concerned with whether the appraisal is made a part of the written record. The method of transmitting such appraisals is secondary to the more important requirement that it be done properly under the circumstances.

In some cases the interests of the company can best be served by an oral report at the end of each audit. Other circumstances may dictate a formal written report. The important thing is not the mechanics, but the success. I realize that to appraise people outside of your own supervision is a task that requires considerable judgment. I recognize, too, that the broad scope of the internal auditor's activities puts him in a particularly good position to provide that kind of help to operating management.

I mentioned the tremendous volume of paper work required and furnished to operating management. Few of these managers have had technical accounting training. They do not often understand accounting lingo, and sometimes an area of confusion exists without anyone being aware that it does. In fact, the problem of accounting interpretation has become so acute that a trend has developed toward reorganizing the accounting function so that figure gathering and figure interpretation are separated.

AUDITOR AS LIAISON

The internal auditor can render dual service by acting as a staff liaison between accounting and operating personnel and by doing his share in the continuous educational program. You will find that your help will be appreciated, and the whole stature of internal auditing will be improved, if your approach is based on a sincere desire to help those in operations get what they need, in a form that is understandable to them and to those responsible for providing the information.

So far I have dealt largely with people and paper, and some of the constructive aspects of those activities that can be a contribution of the alert auditor. Now let's turn to policies and procedures.

One of the well recognized and often discussed control aspects of internal auditing is seeing that policies are being adhered to and that procedures are being followed. That is certainly one of the basic functions. I am reminded, too, of an old saying in accounting circles to the effect that the best way to get a wrong procedure or policy changed is to follow it to the letter. There is a lot of truth in that too, but carried to an ultimate conclusion, the change might come about with the dissolution of the business.

More is at stake in our companies than the complacent verification that things are being done in accordance with established rules. Let us evaluate, when practicable, what the policy or procedure is doing. That may be worth a great deal more to your company than the knowledge that it is being followed.

Policies are most frequently translated into specific action by someone not too familiar with what eventually transpires in some other area of the business. Just as frequently, the result of a policy change in one area has an end result in another that might, curiously enough, have been entirely overlooked in the original consideration. These things happen, and while it may be supposed that eventually it will be uncovered, the possibility exists that unless the resultant effect is of rather sizable proportions, it may be overlooked for a considerable period of time. For example, a small packaging change may create a minor bottleneck in the shipping department of one of the branch warehouses. The bottleneck may eventually lead to expensive revisions in the shipping department at a time far enough removed so that no conscious connection is made with the packaging change.

That example may appear at first glance to have a rather far-fetched resemblance to internal auditing. Perhaps, as an isolated item, it would be unreasonable to expect the auditors to catch that sort of thing. The point is that we are looking at the plus side of the ledger.

CONSTRUCTIVE EVALUATION

As roving accountants, with the opportunity to go from one end of the business to the other, and with the knowledge obtained through such visits, you are sometimes in a position to see things going on that you recognize as the outgrowth of a happening somewhere else. Or, you may see a tie-in operation that had not previously been recognized. The recognition and reporting of such matters, although it may not be a part of your written job description, nevertheless will be welcomed by those who must operate the departments affected. This is a practical aspect of helping others to do their

job better. You may not be able to cover all these things in your audit report; but whatever you do in a constructive way will add materially to the well-being of your company, and in so doing will be good for you.

I would like to see the internal auditor become more influential on the positive side of constructive evaluation. Too frequently the auditor is looked upon as someone who is looking for something wrong. I am afraid that may be borne out by audit reports that criticize but never praise. It is easy to say something is wrong, and often very difficult to suggest a better solution.

Frequently I hear reference to the need for educating operating people. That may be a partial answer. But it seems to me that a greater challenge to our profession lies in the direction of improving our own wares. Strangely enough, our most limiting factor in this respect may lie in our own frame of mind. We live so long under certain rules of procedure that they tend to become sacred cows. We, as accountants, tend to insist that we do not cause things to be as they are, but we merely report them and analyze them. Sometimes we tend to allow the technical correctness of an auditing or accounting technique dictate our approach to a problem, rather than an open mind and creative thinking. The operating personnel of functions being audited cannot be expected to embrace an auditing program that is static, routine, repetitive, and merely critical. They will cooperate and encourage a program that is dynamic, constructive, and helpful, because their time will have been well spent and profitable.

I believe that part of the internal auditor's job is to use a proper amount of his time to take the mystery out of accounting. It would be time well spent, and not only would it be beneficial to those who were learning, but the obvious advantage of a common language would promote better relations for your accounting associates.

CHALLENGE OF AUTOMATION

It takes no foresight to predict that there is coming upon us an age of automation. That such an era will profoundly affect all of the operations of our companies must be promptly recognized by all of us. One of the most rapidly advancing facets of automation is that of data-processing. The great potential of these remarkable processes will be utilized only as rapidly and only to the extent that they are understood by those who are on the receiving end. There will, for example, be made available in a matter of minutes information that today we cannot even begin to comprehend.

The field of automation will offer not only a tremendous management challenge to master and harness its great potential, but it will also bring with it the greatest single challenge that I see in the future of internal

auditing. There will evolve new standards of appraisal. Many of the quantitative aspects will inevitably recede into a machine, and new measures of accuracy and quality will evolve. More and different information will pour forth, and those companies who first become the master will enjoy first the success of competitive victory.

Internal auditors can and must provide one of the vital elements of making the transition to automation smooth and understandable. The computer cannot replace all people, but it can and will displace them. What can be done as well as what cannot be done with machines must be understood by tomorrow's auditor. It must also be understood by tomorrow's operating management. The role of the auditor in helping provide such understanding will be one of his greatest opportunities. We are already active as a professional organization on research into the field of automation. I hope that as individuals, you too are looking ahead into the problems and opportunities of this revolutionary field. It is said that the top management tree has plenty of room at the top because of those who went to sleep and fell out. I hope the same thing cannot be said about the internal auditors in the future. One thing is certain and that is—if we fail to do the job, someone else will take over because it must be done.

I have been discussing largely those things which we can do to help those in operations as we move as a professional group so rapidly into the operational and constructive side of internal auditing. Some of these things are a part of any audit. Others are not. But those things not considered a part of your routine audit are sometimes the most important. They are important because they deal with the more fundamental side of any job—that of helping your associates in the proper way. That is the way a business stays dynamic and grows. That is an attribute of the successful professional man. In steering your audits into the operating end of your business, you will recognize the needs of the operating people. The help which you give will be the result of auditing for operations.

THE SEVENTH INTERNATIONAL CONGRESS OF ACCOUNTANTS*

By W. R. DAVIES

President, Institute of Internal Auditors

YOU may be interested in hearing a brief report concerning the Seventh International Congress of Accountants, which I attended in Amsterdam. As you may know, our interest in attending the Congress, which was primarily of interest to public accountants, was that one complete session was devoted to the subject "The Internal Auditor." That the Congress committee decided to have a session on this subject is, I believe, significant of the importance which is being attached to it by accountants all over the world. They are all interested in knowing more about its nature and scope and, more importantly, where it is going.

The session devoted to the discussion of the subject "The Internal Auditor," like all the other sessions, was conducted in accordance with the European *rapporteur* system. The chairman, a German public accountant, introduced everybody on the platform and made some general introductory remarks. The three vice-chairmen, all public accountants from New Zealand, Finland, and Mexico, addressed a few words of thanks to the panel and the chairman at the end of the session. Most of the work was done by a discussion-leader and a panel of seven members.

In his introductory remarks the discussion-leader, an English chartered accountant, presently managing director of British Overseas Airways Corporation, set the background for the discussion by assuming that he was the managing director of a medium-sized business who wanted to get the best advice about the working of internal audit in his business. He assumed that a certain amount of internal auditing was already taking place but was limited to its protective functions, *i.e.*, the prevention and detection of fraud, misappropriation, inaccuracies and deviations from prescribed procedures, and that he had the unique opportunity of being able to consult the seven very eminent gentlemen of the panel. He pointed out that four of them were in public practice in Australia, Canada, Denmark, and Holland, and that three of them were on the financial side of industry in the United States and the United Kingdom. Incidentally, five of the panel members had been invited to submit papers on the subject. These papers had been submitted by the authors six months before the Congress date and had been printed by the

* Presented at the First Middle Atlantic Regional Conference, October 5.

Congress and distributed to each person in attendance prior to the opening of the Congress.

Rather than taking the time to have each author of a paper get up and read his paper, under the *rapporteur* system one of the authors is asked to summarize the important points of all papers in fifteen minutes. Thus, after setting the stage, the discussion-leader introduced the *rapporteur*, who in this case was Mr. W. A. Walker, vice-president and comptroller of United States Steel and a former member of THE INSTITUTE.

After hearing Mr. Walker's résumé, the discussion-leader divided the discussion into three parts occupying about twenty minutes each. The first part was based on the question, "What is the scope of the internal audit function within a business?" The discussion-leader pointed out that, based on the five papers submitted, this was a controversial subject. Two panel members had taken the position that the main function of the internal auditor should be protective; the other three were in favor of a constructive function as well.

At this point, the discussion-leader called upon me to open the discussion of this subject, which I did in a ten-minute discourse during which I had the opportunity of quoting our revised "Statement of Responsibilities of the Internal Auditor." The ensuing discussion very clearly showed, in my opinion, that the only members of the entire panel who were in favor of a broad audit scope extending into the operating phases of a business were Mr. Walker and myself. Of the other five members, two definitely wanted to confine the internal auditor strictly to financial and accounting matters, whereas the others felt that he should be given a somewhat broader scope.

Another twenty-minute period was devoted to a discussion of the relationship between the internal auditor and the public accountant. Four out of five of the formal papers had devoted considerable attention to this subject, revealing that in countries other than the United States a problem exists that we do not seem to have here. From the panel's discussion and inquiries I made in Europe, it seems that the relationship and coordination of public accounting and internal auditing are on a different basis in other countries.

The final twenty-minute period was devoted to three matters which seemed to be of importance to the discussion-leader. They were:

1. What qualifications should the internal auditor possess, and what are the consequences, if any, of his membership in a recognized body of accountants?
2. What status should the internal auditor hold in the business?

3. What is the relation between internal audit and internal control? Should internal audit be regarded as part of the system of internal control? And can the internal auditor take direct action in cases of inefficiency in internal control; or should this be reserved for management?

Generally speaking, there was considerable support to the view that the internal auditor should report to top management, that he should possess sound qualifications and be a member of a professional society, and that internal audit is an appraisal activity, not necessarily a part of the system of internal control.

I would like to summarize my impressions of the Seventh International Congress of Accountants in respect to the session on "The Internal Auditor" by saying that although internal audit thinking and especially practice are ahead in this country, some Europeans and European companies are definitely of our school of thought. With the passage of time and the questioning of old traditions, we should expect to see a greater world-wide acceptance of the principles of modern internal auditing.

THE INTERNAL AUDITOR

A CANADIAN VIEWPOINT

By L. G. MACPHERSON

Canadian Institute of Chartered Accountants

THE NATURE OF INTERNAL AUDITING

AS a recognizable business function, internal auditing is a very modern development. While its roots reach back at least to the efforts of feudal lords to confirm the accounts of their agents, the form and status of internal auditing received their first public recognition upon incorporation of THE INSTITUTE OF INTERNAL AUDITORS in New York in 1941.

Subsequent developments in internal auditing have been so rapid that it is difficult today to mark its boundaries. Some writers seem to suggest that internal auditing embraces the whole field of business operation, while some cautiously believe that it should be confined to the traditional auditing function.

A reasonable approach to the nature of internal auditing emphasizes the two aspects of protection and verification, to which a third, the advisory function, is often added.

The importance of verification as the earliest function of the company-employed auditor is suggested by the work of the nineteenth century railway auditor who checked ticket agents' sales reports and stocks of tickets, and by the system of bank inspection which has long been a significant factor in branch banking. The internal auditing of branch banks has developed to such a highly efficient operation that shareholders' auditors of Canadian banks are able to devote most of their attention to head office records. An examination of the very large branches and possibly a few smaller branches, together with the work of the bank inspection staff, provides an adequate review of branch affairs.

The function of protection is inseparable from the function of verification unless the latter is looked upon merely as a matter of clerical proof of accuracy. Checking, however, is not carried on for its own sake, but for the results that it will help to obtain, and the chief of these is that of safeguarding the company's assets and, in a broader sense, their proper use and disposition.

Here we have a natural environment for great expansion of the internal auditor's responsibilities, since the broad protective function, embracing much more than accounting accuracy, may reach out to every part of the business operation.

The protective activities in any enterprise are related to the problems of planning, organization and methods. Governmental bodies have established organization and methods sections to perform important functions of investigation, consultation, planning and advice. Similar sections have been set up as methods divisions in some firms of public accountants. Industry relies for this service not only upon its executive officers but also upon external management consultants.

The developments which have been traced present a number of questions concerning the function and status of the internal auditor, including his status within the company, the desirable degree of independence, the scope of his duties and responsibilities, and the relations of the internal auditor to the external auditor. These questions have all received such able attention at conferences and in the literature of internal auditing, that one might think that any further comments would reflect either temerity or brilliance. The task, however, has been undertaken in the humble belief

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that discussion of auditing and accounting subjects at an international congress is bound to advance mutual understanding of an increasingly complex field, and to that end neither an excess of courage nor the talents of a genius need be sought.

STATUS AND INDEPENDENCE

So much has been said and written on the subject of the auditor's independence that I shall direct only a few remarks to this topic. Independence is relative, not absolute. It is a function of the mental attitude of the individual concerned, influenced probably by his personal economic situation and the social relationships involved.

Professional independence is such an important attribute of public accounting that the idea of independence carries over inevitably into the theory of internal auditing. The internal auditor cannot, however, attain the degree of independence in his operations that is characteristic of the shareholders' auditor. Top management would surely be in an unenviable position if a company employee, located somewhat lower on the organization chart, reported independently to the shareholders. The unlucky employee designated as internal auditor in such an arrangement would find his position wholly untenable unless he confined his attention strictly to routine matters. Soon the conclusion would be reached that the more independent the internal auditor might be in his relationship to top management, the less valuable would he be to that management.

Nevertheless, a psychic independence is vital to the auditing process, and should be supported by suitable status within the organization. It is appropriate to expect, in the internal auditing, an independence with respect to audits of operations at all levels below but not at levels above the organizational status of the audit department. The degree to which the internal audit will facilitate the shareholder's audit will bear a close relationship to the internal auditor's independence of the departments subject to the internal review. In terms of general organization, this means that the audit section should not be part of the accounting department. It may well be part of the staff of the chief financial officer, if the latter is a senior executive and a member of the management committee. In terms of operations, it means that management should not allow audit staff to be substituted for accounting staff in temporary situations without recognizing the corresponding loss of independence and, in consequence, the reduction in reliance to be placed on the internal audit by the external auditor and by management itself.

In each case the external auditor tries to evaluate the independence of the internal auditor with respect to each department separately, knowing that it will vary according to the plan of organization and according to the

degree to which the audit staff has actually participated in the work of the various departments by supplying temporary help, by originating entries, and so on. The significance of the internal audit as a part of the internal control will be measured to a considerable degree by this evaluation.

AN EXTERNAL VIEW OF THE FUNCTIONS OF THE INTERNAL AUDITOR

Some observers have made a distinction between the protective functions and the constructive functions of the internal auditor. The protective responsibilities are those related to the control of assets, authority for expenditures, adherence to established policy, and acceptability of accounts and reports, while the constructive functions include the critical evaluation of policies, techniques and performance with recommendations for improvement and correction. A well developed internal audit will integrate the two types of functions, but if a choice must be made between them, the emphasis should be placed on the protective aspects, since occasional employment of the specialized services of management consultants can provide good doses of critical evaluation.

The protective functions direct the internal auditor's attention to the quality of the whole system of internal control. He should be expert in the methods of internal control, and knowledgeable as to his company's control procedures. His examinations and reports should stress the importance of the separation of operating responsibilities, custody of assets, and initiation of transactions from the recording and accounting aspects. He should be wholly familiar with the actual operation of the company's system of built-in accounting controls known generally as the system of internal check

Where the accounting is decentralized, as in many multiple unit enterprises, an obvious need exists for constant review and direction as to consistency in the application of accounting principles. Where the company employs integrated or electronic data processing methods, accompanied perhaps by centralized accounting, a continuous familiarity with the techniques, and especially with the programming in use, is essential. In every case, proficiency in procedures and methods will contribute to accounting control, and in these matters the internal auditor should be an effective influence.

The evaluation of procedures and methods often leads the internal auditor into a function similar to the systematic "organization and methods" work already established in governmental services and in some business concerns. To a degree this is a corollary of the protective function of the auditor, since conservation of assets includes their efficient use and the prevention of fraud, but beyond a point it will absorb the time of the internal auditor at the expense of the functions which warrant his title. In many instances, organization and methods services can be provided better by

external practitioners with broad experience, and many public accounting firms now have methods divisions devoted to this work.

From the viewpoint of the external auditor, any pronounced tendency on the part of the internal auditor to move from the protective function toward the advisory function and the appraisal of policy is regrettable. There is still a great need for the proof of accuracy and the application of accepted principles and policies, and the avoidance and detection of fraud and error. There is always a danger that the activities of the internal auditor will penetrate so far into the advisory or so-called constructive duties that he may be tempted to provide expert advice on the whole range of operations. He must then become an expert not only in accounting but in finance, procurement, production, warehousing, marketing, personnel administration and public relations. In other words, he would need to function as might a completely diversified management consulting group. The existence of such a superman, giving advice on every business activity, would surely distress top management and alarm the consulting specialists.

The prime responsibility of internal auditing should be the maintenance of internal control. This, of course, includes what is called the prevention of fraud, although no absolutely fraud-proof system is likely to be devised. The position of the chief financial officer of any large company emphasizes the importance of detection and prevention of fraud. He is dependent upon the internal auditor for whatever information and sense of security he has with respect to the operation of the internal controls. The auditor who recognizes this relationship will accept not only the function of review and measurement of the application of company policy, but also the responsibility to advise and recommend with respect to defective control and the means of improvement.

SIGNIFICANCE OF THE INTERNAL AUDIT TO THE SHAREHOLDERS' AUDITOR

The shareholders' auditor must form and express his independent opinion on the annual financial statements of the company. To do so he must, amongst other things, satisfy himself as to the reliability of the accounting records. An important part of this process is the investigation of the system of internal control, including any internal audit in operation.

It is a well established principle that an external auditor may rely extensively on the work of an internal audit department if, by review and appraisal of the operations of that department, he has satisfied himself as to its effectiveness. He may, in his examination of the system of internal control, benefit from the internal auditor's knowledge of the system; he may focus his attention on parts determined by the reports and program of the internal auditor; but he must satisfy himself by tests and inquiries that things are

as they seem, and that the internal controls are operating as they are supposed to do.

Audits by public accountants will never be compressed entirely into audits of internal audit departments even in the case of very large companies, although to some this might seem to be a logical result of certain current trends. There are, however, many ways in which an effective internal audit will assist the external auditor, especially in minimizing his examination and review of ordinary operations and transaction details, and to some extent in the balance sheet verifications, but these cannot eliminate the tests and examinations which are essential if he is to form an independent professional opinion on the credibility of the representations of the company's officers.

The staff of a client cannot be allocated suitably to the duties of the external auditor. The clients' staff will almost certainly lack appropriate indoctrination and training, especially where the person is not part of the internal audit staff; there is likely to be failure to switch viewpoints; and there is a danger of conflicting loyalties. But this does not bar the use of client staff to minimize the detail work.

The internal audit staff can assist, for example, in the confirmation of receivables either by rotating the sections confirmed or by preparing the documents for mailing; they can participate in cash counts and in the observation of stock-taking procedures; and they can prepare required schedules and analyses with a skill and understanding, based on their experience as auditors, which is not likely to be found in the accounting department.

The great value of cooperation between the internal auditor and the external auditor is evident. It is almost painfully clear in some instances, where the external auditor does not share the internal auditor's technical facility in the industry. Where, for example, the external auditor is verifying stock in trade, he may find that personal contact with some products is useless, if not even dangerous, in the absence of highly specialized skill, knowledge and judgment. This may be so in the case of isotope products, wholesale drugs, gas in storage wells, pulp wood in block piles, logs in booms, and specialized electronic instruments. In some such cases there will be an understandable willingness to rely greatly on the internal auditor.

An able internal auditor will be fully informed as to his company's system of internal control and its effectiveness in operation, and this may serve to shorten the usual process of review of internal check, if he is given the opportunity of conveying his knowledge of the system to the shareholders' auditor. Shareholders' auditors who have found that the internal control questionnaire can be a tedious and sometimes exasperating device may

restore their faith in its usefulness by inviting the cooperation of the internal auditor in its completion. This is to be preferred over an alternative method sometimes used, in which the internal auditor is blandly requested to supply a detailed description of the system of internal control in use. The auditor who recognizes that the control points in an extensive system may be virtually innumerable will suffer a moment of consternation before he decides that what is wanted is a complete copy of the company's procedures manual.

All of these possibilities of cooperation—in verifying cash, confirming receivables, examining stock in trade, surveying the system of internal control, and preparing working papers—present valuable opportunities, but they are secondary to the most important consequence of an internal audit insofar as its effect on the external audit is concerned. That is the possibility of greatly reducing the shareholders' auditor's attention to transaction details, freeing him to devote reasonable time to the assets and liabilities, the analysis of operations, and the appraisal of the fairness of the financial statements.

The external auditor cannot accept the work of the internal auditor as part of his own; he cannot merge the internal audit staff temporarily with and as his own; he cannot avoid responsibility for satisfying himself as to the fairness of statements simply because the internal auditor has reported his firm and clear opinion. Nevertheless, he can, by review and examination, assure himelf of the attitude of independence of the internal auditor at each level of operation. He can and should review the internal auditors' completed program of work and his reports; and, if conditions are favourable, he can come to his own substantiated opinion by a much shorter route and by a more specialized examination than would otherwise be the case.

A few thoughts on the differences between the internal auditor and the external auditor, as to viewpoints and responsibilities, may be relevant to the possibilities of cooperation.

The respective attitudes towards company policy and accounting principles on the part of internal and external auditors serve as a good example of such differences. The internal auditor must be concerned to see that company policy is followed even if that policy conflicts with accounting principles; he may of course make recommendations to change the policy, but failing success in such recommendations, he has a responsibility to see that the policy is followed regardless of the conflict. The external auditor, on the other hand, is concerned with the application of accounting principles, even though company policy may be opposed. The internal auditor will report serious deviation from company policy, whereas the external auditor will report serious deviation from generally accepted accounting principles.

Consider, also, the relative positions of the internal and external auditor in circumstances where the accounting treatment of certain material transactions is grossly objectionable. The internal auditor has no way of carrying his views beyond the level of management to which he reports; but the external auditor must, as a matter of conscience and ethics, see that the matter is either adjusted or reported on, and his report, if he is serving as shareholders' auditor, will become public to a degree.

Another contrast is evident in the grounds for mutual interest in the effectiveness of internal control. The internal auditor is charged with the protection and conservation of the company's assets, and an adequate system of internal control is the means of discharging that responsibility. The external auditor's concern with internal control is in its bearing on the scope of his audit. In his view the extent and quality of internal control is a matter of decision by management. He may be prepared to advise, but when he does so he serves as a business consultant and not as auditor.

Further differences in viewpoint may be found in the fact that, to the external auditor, the work of the internal auditor is a part of the whole system of internal control, while the internal auditor will view his own work largely as the employment of audit procedures common to both internal and external audits, including the review of internal check.

Finally, I must add that I have found only one unique term used to describe an internal audit technique. This is the word perambulation. Research has convinced me, however, that perambulation is not limited to internal auditing, for external auditors also indulge in the practice of walking about and observing things. This is just one more bit of evidence to support my belief that internal auditors and external auditors, with mutual respect and confidence, and with similar attitudes of mind and spirit, but from somewhat different viewpoints, are working toward the same ideals. That is a word the cynics avoid, but its recognition and acceptance appear in business leadership today. It is a word for the objectives of those who look beyond selfish interests to the common good, and it should mark the character of the professional in any field.

THE INTERNAL AUDITOR
A BRITISH VIEWPOINT

By ERNEST SINNOTT

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THE GROWTH OF INTERNAL AUDIT

1. The development of internal audit as an accepted commonplace in medium-sized and large scale business enterprises and in local government and public authorities is a thing of the present century. The more widespread adoption of internal audit has corresponded with the tendency for growth in size and complexity of these organizations and with advances in techniques of management.

2. Although the constitutions and the purposes and objects of these organizations vary widely, and they pursue independently their search for efficiency, they are alike in according to internal audit a status sufficient to make a practical contribution to efficiency and economics.

3. The proprietor of a small business, exercising personal control and supervision, can himself perform the simple internal audit work necessary. As the business expands and he must delegate some or all of his responsibilities to employees, he will resort to internal check in the arrangement of their activities. He will also ensure the installation of an accounting system which will provide him with the information he needs to exercise top control and direct the policy of the business.

4. Relative smallness in the numbers of staff employed limits the extent to which internal check can be a substitute for internal audit. In the earlier stages of the expansion of the business the proprietor will not wish to add to his overhead expenses by the employment of an internal auditor and he will turn to the external (public) auditor to advise him on the best methods of accounting and internal check to give him the information and security he seeks.

5. Interchange of staff duties, close cash and stock control and an external audit going beyond the books of final accounts and into details of transactions may postpone the time when it becomes necessary or desirable to employ internal auditors.

6. The growth of joint-stock finance and in the scale of business operations, giving rise to the emergence of management distinct and separate from ownership, has fostered the development of internal audit.

7. As a general proposition it may be said that the employment of internal auditors becomes necesssary or desirable when the size of the business, or the local or public authority is such that:

a. Managers immediately responsible to the proprietors or policy-making body are themselves not in constant touch with operations.

b. Authority to make significant decisions must be delegated to employees holding positions of trust remote from the controlling body.

c. Systems and procedures have become sufficiently complex to involve the risk of unauthorized variations or delays.

d. Transactions are too voluminous or technical in nature for an external auditor to have sufficient regard to matters of detail.

FUNCTIONS OF THE INTERNAL AUDITOR

8. In practice, the functions of the internal auditor will be governed by the attitude of the top management towards the purposes and objects of internal audit. His powers and duties vary as between different organizations, but frequently he is regarded as a protective device for management and as forming a link between the controlling body and the operatives in the field. His activities will also be governed by the extent of the internal check practiced in the organization. Modern thought, it seems, extends his functions beyond those traditionally associated with his origins.

9. It is not considered that the investing public in the case of private enterprises, or the ratepayers or consumers in the case of local authorities and public boards, are concerned whether or not there is an internal audit in these organizations, except to the extent that they expect them to be administered efficiently and properly, and profitably in the case of trading concerns. The public would look rather to the published results and external auditors' certificates and reports or to the level of local taxation and the standard of public services.

10. It follows, therefore, that the duties of the internal auditor lie towards the management and controlling body of the organization he serves, and these might be laid down at the time of his appointment.

11. Management is entitled to look to the internal auditor for the performance of the following functions:

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a. Prevention and detection of theft, fraud or any other losses of a like nature. The emphasis should be on prevention through the continual appraisal of the system of internal check.

This aspect of the internal auditor's work is historically pre-eminent and should be a foremost consideration in the planning of audit work, because there will generally be a deliberate attempt to conceal this type of loss.

b. Prevention and detection of error, again with continual appraisal of the internal check.

Error and waste are less likely to be the subjects of deliberate concealment, though sometimes they might be in order to cover up an inefficiency. Management should rely on the internal audit to bring these matters to light, not only to prevent any repetition but also because management policy might be wrongly framed if based on data which is erroneous.

c. Detection and reporting of non-compliance with financial regulations and accounting instructions.

The words "financial regulations" may be interpreted broadly, including powers of incurring expenditure, the disposal of assets, tendering and purchasing procedures, placing of contracts, etc., and all standing instructions with a financial significance.

In covering this wide field the internal auditor must use judgment and discretion. Rigid inflexibility may gain for the internal auditor a reputation for the stifling of initiative. Thus, where he finds that, though the spirit and intention of standing instructions have been observed, there has been some variation in detailed operation because of local circumstances, his report should indicate the reasons for, as well as the fact of the variation.

Accounting instructions, on the other hand, should be rigidly observed because departure from them can, where necessary, be agreed in advance with the chief accountant. The internal auditor should also give some attention to verifying that accounting records are kept up to date.

d. Suggestions for improvements in systems and methods, the presentation of financial and statistical data, the securing of further possible economies and ways of increasing income.

The internal auditor has, or should have, full authority to cross departmental lines. With this authority and his experience in conducting audits, allied to professional skill and training, he must constantly use a critical sense to assess the possibilities of improvements of the kind set out above.

This does not mean that the internal audit staff should also be the Organization and Methods staff, though this dual function is performed in some organizations. It is true that the review and improvement of systems and methods is one of the primary objects of Organization and Methods and

that care must be taken to avoid duplication of work between the two staffs in this field. But in the course of their work, the internal audit staff have unique opportunities of appraising systems and methods, and it may well be that there should be some cooperation between the internal audit and the Organization and Methods staff. Useful information may be supplied by the internal auditor which may become the basis for an Organization and Methods investigation, but it is considered that the primary functions of internal audit may be impaired unless the two staffs are kept separate.

Fundamentally, the internal audit staff should have a right of access, whilst Organization and Methods staff should investigate only by invitation.

12. It may be useful at this juncture to mention a number of functions which, it is considered, ought not to be the concern of the internal auditor. They include:

a. The design of systems.

In order to be free to pursue his activities of continual appraisal of the efficiency and effectiveness of systems in use, it is preferable that the internal auditor should stand aside from their design and prescription. But he should always be ready to advise on them.

b. He should not be part of the internal check system. An internal auditor should not have executive functions, and he should be independent of and helpfully critical towards the internal check system.

c. Special investigations.

There is a temptation to employ internal audit staff on special investigations which arise from time to time. Though quite proper to use them on investigations relating to suspected fraud or falsification of accounting records, it is thought that they should only be sparingly used in other kinds of investigation. These may include, for example, a proposed new system or procedure, an enquiry into the reasons for falling profits in a particular department, compilation of data for recruiting policy, etc. Too many assignments of this nature, however, detract from the comprehensive and continuous review which is the first responsibility of internal audit.

QUALIFICATIONS AND ATTRIBUTES OF THE INTERNAL AUDITOR

13. The main emphasis (though not the only one) of the internal auditor's activities is in connection with the accounting and financial operations of the organization he serves.

14. The most appropriate qualification for him is an accountancy one and it is most desirable that he should be a member of a recognized professional accountancy body. In the course of his duties he will be required to audit the records of staff, some of whom are likely to be qualified accountants, to conduct discussions with them and possibly to criticize their perform-

ances in his reports. Unless, therefore, he has a professional qualification at least equal to those possessed by staff whose work he examines, his views may not be accorded the respect and attention which they should receive.

15. A good internal auditor will go beyond the learning and experience which he has gained in the course of acquiring his professional accountancy qualification. He should seek to acquire as much information as possible about the technical production or service processes, economic and legal considerations and administrative techniques pertaining to the organization he serves. Only with this knowledge added to his professional accountancy skill can he adequately and ideally perform his duties.

16. In addition, there are other attributes of character necessary to a successful internal auditor. He should have an enquiring mind, a well developed critical faculty and the qualities of patience, tact, integrity and determination. He should have a pleasant personality and although he should be a good mixer and gain the confidence of the staff of the organization, his friendliness and helpfulness must not extend to familiarity.

STATUS IN THE ORGANIZATION

17. The question of his status in the organization and of to whom he is responsible may be one for some differences of opinion. A degree of independence is vital to the proper effectiveness of internal audit, but in the view of the writer this does not signify that he should be directly responsible to top management.

18. The number of higher executives responsible to top management should be limited if top management is not to be overburdened. The head of the finance branch, whether he be titled Treasurer, Comptroller, Chief Accountant or Chief Financial Officer should be responsible for the whole of the financial operations and it is to him that the internal auditor should be responsible.

19. If the internal audit is developed independently of the finance branch or department, there is a danger of parallel internal audit sections, by whatever name they may be called, being set up within the same organization.

20. To obtain the best results, a wise chief financial officer will accord to the internal auditor a status within his department as senior as is reasonably possible, and will allow him wide freedom of action in the matters to be audited and the methods of doing so.

21. The arguments of those favoring the complete independence of the internal auditor from the chief financial officer are usually centered upon the difficulties arising if the latter were himself involved in financial irregularities or if he ignored or suppressed legitimate accounting criticisms.

Undue emphasis must not be attached to these points. One must pay regard also to the likely standing in the organization of the chief financial officer, and the system of internal check which can be installed to limit the possibilities of irregularities. A chief financial officer, too, is more likely to react favorably to constructive criticism of the accounting system and procedures if it comes from inside, rather than outside, his own department. Moreover, the support of the chief financial officer lends more power to the internal auditor in carrying out his duties.

22. It should be laid down, however, that the internal auditor has the right of access and direct report to top management in extreme circumstances.

RESTRICTIONS ON THE SCOPE OF ACTIVITIES

23. There is a difference between the responsibilities of an internal auditor and those of an external auditor. Those of the latter are placed upon him by statute; his certificate on the organization's final accounts is relied upon (as relevant to the particular organization) by shareholders, the general public, taxpayers and the national taxing authorities. An external auditor must have these responsibilities constantly in mind and cannot accept any restriction whatever upon professional standards.

24. An internal auditor, on the other hand, is employed by the organization to perform the functions discussed earlier. He owes his responsibility to those who employ him, and it cannot be regarded as unethical for him to accept and carry out the legitimate instructions of his employers. Towards such functions as he performs he must bring to bear the highest professional standards, but the scope of those functions will quite properly be prescribed by top management. If he considers that the scope is so restricted as to render his employment virtually abortive, it would be his duty to point it out at the time of his appointment and, if he thinks fit, to decline the position.

25. This, however, would be so rare and extreme a case as to be most unlikely in practice. The internal auditor should have his scope of activities clearly defined, and his reports should indicate any shortcomings due to restrictions imposed on his activities. The external auditor, in his collaboration with the internal auditor, should become acquainted with any limitations in the scope of the latter's duties and arrange his audit program accordingly.

AUDIT OF THE ACTIVITIES OF TOP MANAGEMENT

26. This matter is closely related to that discussed in the paragraphs immediately preceding. Since his appointment will derive from top management, the question of the audit of their activities will be decided by them. A position of some delicacy may well arise, for the ultimate authority

to which the internal auditor can report is top management itself. It is considered that the internal auditor might best discharge this onerous task by offering advice on a sound system of internal check upon top management activities. Should top management welcome internal audit of their own activities, the internal auditor's position will be eased. If, on the other hand, the scope of his activities is restricted to exclude top management, he can quite properly leave this field to the external auditor, having made his own restricted position clear to that auditor and having proffered advice on the appropriate internal check. In local and public authorities, considerations of public accountability would tend to make it more desirable that access to the activities of top management be accorded to the internal auditor.

RELATIONSHIPS BETWEEN THE EXTERNAL AND INTERNAL AUDITORS

27. The fact that the internal auditor is an employee of the organization should in no way prejudice his relationships with the external auditor.

28. The Institute of Chartered Accountants in England and Wales has considered this matter and has recorded its views in a publication of 1953 entitled "Notes of the relation of the internal audit to the statutory audit."

29. In this publication the Institute records that the statutory auditor may (inter alia):

a. "derive much assistance from the internal auditor's intimate knowledge of the accounting system and technical knowledge of the business";

b. "where satisfied that the internal auditor has adequately covered part of the work . . . be able to reduce the extent of his examination in detail";

c. "be able to rely to a large extent on the internal auditors in determining whether the system of internal check is operating satisfactorily and in assessing the general reliability of the accounting records."

30. Coming from such an authoritative body these pronouncements are significant and exemplify the beneficial results flowing from cooperation between the external and internal auditors. Each of the two classes of auditors, however, has different functions outside this band of common interest. Both have been referred to already: the external auditor's responsibility to the public, his emphasis upon the accuracy and reliability of the final accounts and his attention to that part of the work which may not be adequately covered by internal audit (*e.g.* top management activities). The internal auditor will have paid close attention to detailed records and documents, the operation of the internal check, more efficient or cheaper methods of performing accounting and clerical duties, and the other duties for management referred to in paragraph 11.

31. It is usual for Government auditors of local authorities (the District Audit) to make extensive use of the knowledge and activities of the internal auditors.

32. The internal audit programs and reports should be made available for the scrutiny of the external auditor, and the two forms of audit may be regarded as complementary.

THE ORGANIZATION OF THE INTERNAL AUDIT

33. Where the area of operations of an organization is reasonably compact, little difficulty presents itself in considering the best form of organization for the internal audit staff. It is located at the headquarters seat of the organization's operations.

34. Where, however, the operations are over a wider area such as that, for example, of a public electricity board, considerations of geography enter into the problem. In the writer's view, internal audit must be regarded as a headquarters service, but beyond this it is not possible to generalize, and three main variations are possible:

a. Base the entire staff at headquarters and travel to the outlying branches or districts to carry out audit work.

The advantages are: the facility for changing auditors' duties, prevention of undue familiarity with locally based staffs, a better team spirit among audit staffs and a greater moral effect of the audit.

The disadvantages are: the increased expenses involved, the loss of travelling time and fewer opportunities for gaining local knowledge.

b. The attachment of internal audit staffs to sub-organizations of the main organization, when they are no longer regarded as part of the headquarters service but a tool in the hands of local management. Some form of reporting and remote supervisory link with main headquarters would need to be established.

Under this method, the advantages and disadvantages of method *a* are, roughly, reversed.

c. The establishment of audit teams or groups at convenient centers throughout the area of the organization's activities, under close supervision of, and receiving frequent visits from, the chief internal auditor. The staffs are regarded as headquarters services sited "in the field" for ease of operations.

This arrangement, which is an attempt to gain the best of both methods *a* and *b* is, on the whole, thought to be the best.

INTERNAL AUDIT REPORTS

35. The reporting system of the internal auditor is of great importance in securing the effectiveness of internal audit. Leading considerations are—

to whom should he report, at what intervals and what sort of matter should he include in his reports? The answers to these questions will depend largely upon the type of organization he serves and his status in it. In the context of this paper, internal audit is regarded as a management service and the internal auditor as a senior officer in the department of the chief financial officer. The reporting system would be designed accordingly, and the internal auditor would report through the chief financial officer to the manager (or departmental head) of the district, branch, or department which is the subject of the report. Top management would be apprised by the chief financial officer of anything in the report of sufficient importance to bring to their notice.

36. The general rule should be for reports to be made as soon as audits are completed, rather than at fixed intervals of time. The latter system has the disadvantage of requiring management to piece together two or more reports in order to get a complete picture of the department or branch in which they are interested. Regular reporting at fixed intervals of time may carry with it the corollary of audit visits at regular intervals, so destroying the value of the surprise element.

37. The content-matter of audit reports, whilst being reasonably full, should not be overburdened with detail or references to minor clerical errors corrected during the course of audit. They should, as a rule, be strictly factual and where comments or recommendations are made, reasons must be given. Management is not usually concerned with the audit program or procedure followed, but with the end results of the work.

38. Special considerations may apply to reports of surprise audits which have been specifically commissioned.

THE EFFECT OF DEVELOPMENTS IN ELECTRONIC ACCOUNTING

39. The object of internal audit will not be altered by changeover to electronic accounting. There have been continuous changes in accounting processes throughout the twentieth century, and the transition from the commonly used punched card and other types of accounting machines to the newer forms of electronic machines is no more fundamental than has been experienced in the past.

40. Increased centralization of accounting, which may follow the newer devices, may tend to increase the reliance upon the internal auditor by removing executive accountants further away from operational districts and branches.

41. Appraisal of computor programs may become one of the internal auditor's functions, and it will continue to be at the early stage of original

records and base documents, upon which the worth of future accounting processes rests, that the value of the internal auditor's activities will continue to be felt.

TESTS OF EFFICIENCY OF THE INTERNAL AUDITOR

42. Just as the necessity for a fire brigade ought not to be judged by the number of incendiary outbreaks being few, or of a police force by the number of crimes committed being few, so the internal auditor ought not to be judged by the number of frauds or mistakes uncovered. Indeed, with an important part of the internal auditor's role being that of the prevention of such occurrences, it may be a good thing if none at all come to light, for his activities may be responsible for there being none.

43. A list of economies or increased income resulting from audit suggestions is one interesting test. More important, however, is the degree to which internal audit has been accepted by management, and to which its recommendations have been acted upon, for this denotes confidence in audit activities.

44. A scrutiny of audit reports may also be revealing in assessing the efficiency of the internal auditor. The extent of his activities, his command of the subject and approach to his work will be recognizable from the reports.

MANAGEMENT LOOKS AT YOU*

By WILLIAM BAMERT

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The auditor's value to management lies in something more than his technical proficiency: his ability to penetrate beyond the facts he examines in an endeavor to improve operating efficiency. This and other interesting viewpoints are explored by a corporation executive who discusses the value of the internal audit activity to business management.

MY topic is "Management Looks at You." Let's see how we get from there to "How High Is Up?" Let's first suppose that we have your company president on this stand alongside me. As he looks at you, what would he see? He would see a group of earnest, intelligent and capable men whose immediate bosses are the financial vice-president, or the comptroller, or the treasurer. Undoubtedly your immediate bosses think very well of you because to them you represent insurance—insurance that "all's well" in a technical sense. Now your president, who is figuratively standing here with me, is undoubtedly a very polite man and he probably will say, "That's fine. I'm certainly glad to know that nobody's stealing us blind. But what can you do to help me with what I'm *really* interested in as a business man—namely, running the business better?"

So the ball is back in your lap now, and you might say, "Well, how much do you *want* us to dig beyond strictly accounting matters?" And your top brass would probably answer, not without a touch of impatience, "You can dig as long and as far as it takes to hit pay dirt!"

And this brings me back to my theme song, gentlemen, "How high is up?", which has its counterparts in questions like "How much is enough?", or "How far is infinity?", or "How deeply should an auditor probe?"

Obviously, there can be no precise answers to such questions. But we can perhaps come closer to an answer.

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* Delivered at the Great Lakes Regional Conference.

AUDITING IN DEPTH

I will admit right off that this fictitious conversation between yourselves and your top management may have been slightly overdrawn. But I won't admit to anything more than slightly.

You have undoubtedly found in it two axioms which are well known to all good internal auditors.

First, that in almost any company, whether it be the general management, the sales management, the manufacturing management, the engineering management—none of them is really interested in accounting or auditing of itself. Nor should they be; they probably recognize its necessity and importance to the proper conduct of the business, but beyond that they take it for granted. Being taken for granted is not the happiest state of affairs, either in business or in marriage!

And secondly, you have undoubtedly found that your top management *is* interested in what you as internal auditors can do to help them with their own consuming passions—increasing their sales, decreasing their expenses, upgrading their product quality, and increasing their profits.

By now you have also discovered that a good deal of what I am talking about is an old, old subject to you. It is recognized in your own statement of internal audit functions as "constructive service to management." And in a perusal of your recent meetings, speeches and articles, I have seen it referred to again and again as "Operational Auditing," or "Auditing for Profits," or "The Functional Approach to Auditing." The phrase I like best, however, is "Auditing in *Depth*."

First, let's get over an inevitable hurdle. Who said management *wants* any help—especially from internal auditors? I was an internal auditor for a few years myself. I know first-hand what it means to hear the manufacturing manager say, "What's this young squirt sticking his nose into this for? He doesn't know a screw machine from a lathe." And I didn't, either!

Internal auditing is no place for a supersensitive soul whose chief aim in life is to win a popularity contest. But regardless, internal auditors will

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do well to remember that *all* management worth its salt will gladly accept honest suggestions in the complex process of running a business, no matter what their source. The important thing is how these suggestions are offered. This gets us into the personal characteristics of the internal auditor, about which you have heard much. You have heard how he must have courage—but not mere brashness; how he must have diplomacy—but not spinelessness; and how he must have a balanced business viewpoint—and not just a technical accounting outlook. All of these things are true, particularly if the internal auditor is going to audit in *depth* into the nonaccounting aspects of the business.

All of these words recognize the fact that no one really enjoys being criticized—not even when his critic too loudly protests that he is being "purely constructive, of course!" In a sense, all internal auditing involves criticism regardless of how sugarcoated it be, so if you need bolstering sometimes, as we all do, perhaps a little delving into basic management principle will help. My reasoning runs something like this—

1. All internal audit staffs usually report directly to the top financial man in the business.
2. A good top financial man in any business should be deeply involved in the horizontal functions of company management—namely, relationships of finance to all other corporate functions.
3. Within limits then, all corporate affairs have financial aspects, and a good top financial man cannot remain aloof from any function of the business—but again, how the top man chooses to exercise this interest is just as important as how the internal auditor handles himself. Indeed, it may set the pattern as well as the limits of how the entire internal audit staff functions.
4. And so our reasoning continues that, as internal auditors, you are indeed staff arms of the top financial man in the true meaning of the word "staff."
5. As such you assume then some measure of his responsibility, but not his authority, which certainly should transcend mere technical accounting competence.
6. And finally, therefore, you assume responsibility not only to *think* like management, but because you are almost literally staff arms of your top financial boss, you are expected to *act* like management.

Now don't get the idea that I am saying that internal auditors are vice-presidents! I did say that, as staff extensions of financial vice-presidents, comptrollers or treasurers, you should think of yourselves as representing *general* management in a horizontal corporate sense and not just

accounting management in a vertical functional sense. I started out this flight into management theory by saying it was for your own inner bolstering. And now that you have been promoted to the *general* management team, I trust that you are all properly bolstered!

THINKING LIKE MANAGEMENT

You might well ask, specifically how does an internal auditor go about *thinking* like management. For example, having finished an inventory count, does the internal auditor turn to the manufacturing or production manager and say, "The internal audit program says I must now review your assembly line to see if it is being properly managed"? Obviously he doesn't—at least not more than once! But while it is obvious that the internal auditor never *says* this, it is sometimes less obvious that he shouldn't *act* this way either.

No, the internal auditor who is trying to audit in depth cannot be left in the middle of Lake Erie in a small boat with no oars. He must have "a life line" back to the safe shore of what is indisputably "his own business." This life line is the books of account. For example, the internal auditor's entree into our hypothetical assembly line can legitimately be by means of the payroll accounts or the material voucher review. For example:

1. Audits of payrolls accrued lead to an examination of piece rates, which lead to the supporting time studies, which lead to a check of actual factory operations against these time studies, which can open up as many aspects of factory operations as the internal auditor is qualified to analyze.
2. Another example—audits of accounts payable lead to material vouchers, which lead to purchase orders and routines, which lead to production bills of material, which lead to manufacturing schedules—and here you are back in the thick of factory operations again.
3. Examples in other functions—that is, other than manufacturing, are equally numerous—for instance, audits of accounts receivable can lead to disputed billings, which can lead to discount problems, which can lead to pricing schedules, which are prime factors of the over-all distribution policy.

As practitioners in this field, each of you can probably think of many more examples than I can.

The important thing, however, is the concept of the internal auditor's right and responsibility to conduct audits in depth. No audit program can lead a man into as many byways as an intelligent and inquisitive auditor can find in his quest to answer the question of whether his company is getting the most for each dollar it spends. This auditing-in-depth approach,

therefore, depends not upon the program, but upon the capability and personality of the auditor as he unfolds layer after layer of the business in his search for the ultimate truth.

If an audit program could be devised to pinpoint all of the possible things which could conceivably be reviewed, we would then be able to answer our cryptic question of "How high is up?"

KEEPING EYES OPEN

But back to our hypothetical approach in which we readily agreed that you do not knock on the manufacturing manager's door to get into the assembly plant to see if it is being properly managed. I would like to make one more thing clear. Having wrangled his way into the refrigerator assembly plant by means of the accounts, the internal auditor does *not* set out to make a complete management audit either. He should, however, keep his eyes and brains open for any related piece of the operation which bears upon the financial audit. The very complex interrelationships of modern business will legitimately permit the auditor to go as far afield as he is personally qualified to go—that is, qualified as to business experience, analytical ability, and personal diplomacy.

When I use the phrase "keeping your eyes and brains open," it is difficult to particularize. Each audit might be viewed as an automobile ride. An audit should not be the same old humdrum ride between the office and your home which becomes so repetitively boring. It should instead be your first automobile trip to Florida, in which you are alert and eager to see all the new things there are to be seen. If any audit has become like the ride between your office and your home, I submit that there is something wrong with the audit philosophy or the audit practice or the audit staff.

Generally, however, there are two kinds of things for which an auditor should keep his eyes and brains open as he views his work as a general management representative.

1. The adequacy and accuracy of the reports and measurements used for day-to-day management control purposes.
2. Any and all opportunities for contribution to net profit.

No top-notch manager manages by reports and statistics alone. However, they do help materially in arriving at day-to-day management decisions. It follows, therefore, that if these day-to-day reports and measurements supplied to a manager are either inaccurate or inadequate, his business decisions may be correspondingly inaccurate or inadequate. The audit review of such reports should, therefore, encompass not just the dollar figures, but the related physical data such as shipments, production, and unfilled orders. The review should include not just mathematical accuracy,

but whether the summaries are what they purport to be. Good internal auditing accepts nothing of importance at face value. For example, within each of your own companies key figures are probably being compiled for management which are adding "oranges and apples" and presenting the resultant total as so many units of "fruit salad"—either produced, or rejected, or shipped, or ordered, or sold, or something! Individual inadequacies such as these may not be serious in themselves, but little statistical inconsistencies, if not uprooted, tend to grow and multiply as the clerks who compile them reason that, as long as no one complains about such practices, they are at liberty to compound them. Trained accountants and auditors have a serious failing in dealing with us mere mortals. You sometimes fail to realize that otherwise intelligent, but statistically untrained people, can pull some unthinkable boners with figures. That is, they are unthinkable to you. Your job is to see that the inclusion of these seemingly little boners into management reports does not balloon into serious managerial miscalculations.

Obviously, however, if an internal auditor is to have anything to contribute to this area of management reporting, he should know what constitutes a good managerial measurement. In other words, he should know how to think like management—not just be capable of certifying as to statistical accuracy.

Now I do not intend to join the chorus of management speakers and writers extolling the need for better managerial measurements and control. I just mean to confront you with your responsibility as internal auditors to maintain their quality and to contribute to their improvement.

As to the second item for which you should keep your eyes open—namely, any and all contributions to profit, this may sound too obvious. But it is also sometimes too easy for an internal auditor to have a blind spot because "this isn't my business." Included in this category are apt to be a miscellany of isolated ideas ranging from small cash savings in operating expenses to significant reductions in federal income taxes.

CASH SAVINGS SUMMARIES

For purposes of better understanding what we are talking about, let's look at the cash savings summaries which many internal audit staffs compile. They are often a good reflection of the auditor's contribution to management.

One of the oldest, largest and, in my opinion, best internal audit staffs in the country finds that its best sources of cash savings come from ideas outside the purely financial audit. For example—

1. The intelligent and persistent delving as to why purchases are made in such large or such small quantities always seems to pay off. Usually, of course, such an investigation must take the auditor back into the whys and wherefores of manufacturing or maintenance practices.

2. The same thing applies as to why certain premium materials are being ordered for specific usages. You might say, "Isn't this an invasion of the engineering province?" Sure it is, but as long as internal auditors can raise intelligent questions which are not sheer guesswork, a certain number of them will pay off. As an example, I know of an auditor who could not figure out why his company was ordering quantities of specially sheared steel at a premium price. After asking enough people and getting no conclusive answer, he finally ascertained that not only could they save the price of the special shearing, but that by ordering standard sizes the purchasing company could recover on the scrap—the total savings came to $42,000 a year.

3. Another auditor decided to find out whether all truck shipments were really necessary because of time crises. Sure enough, he found out that a good portion of them had no time element at all and that a reversion to rail shipments in these instances could save $20,000 a year.

4. Another auditor began wondering why a certain factory was paying more in setup time than other comparable factories which he had audited. So he began checking into (a) whether the order of the production runs could be changed to minimize setups, (b) whether the company was paying for setups it was not performing, or (c) whether the company was paying for setups which were being performed but which were not needed. Sure enough, he found considerable pay dirt here, too.

5. Intelligent auditors do not have to be experts in all areas—naturally they cannot be. But good analysts always use comparable operations as a basis for getting leads or forming judgments. For example, another auditor while doing his shipping room assignment wondered why they were packing freight cars the way they were. Based upon his experience in another factory, it looked as if it was not an economical method. His investigation disclosed that a saving of $25,000 a year could be made.

Most of these illustrations could have been passed by while the auditor made an acceptable financial audit. But by practicing some auditing in depth, by asking questions, by being intelligently inquisitive, in short, by

having a management viewpoint—these internal auditors produced something which was, in a sense, above and beyond the call of duty.

EFFECT OF DEPTH AUDIT

Such audit observations and discussions with management regarding measurements or savings have a two-edged effect:

1. They serve to stimulate the audited departments. Almost without exception, these other functions of the business reason that if a "green" auditor can pick up weak points which pay off like this, so can they. It tones up the muscles of the entire organization. Do you know of any presidents who don't prefer organizational muscle to complacent flabbiness?
2. The other edge of the blade is that such internal audit practice builds up respect for the internal auditors as good businessmen. Auditors become men whom management would like to have around for future promotions. I would venture to say that ten years of narrow, protective accounting and auditing competence won't do for your reputations what one year of alertness and auditing in depth will accomplish.

As this respect on the part of top management for the business acumen of internal auditors builds up—another phenomenon occurs. The value of internal auditing in depth as a management development device will dawn upon any reasonably alert company.

At this point, and on this subject of management development, I would like to change the course of our discussions, because in some respects the value of internal auditing as a management development device can well become the thing of most significance to top management when it thinks about the function of internal auditing.

INTERNAL AUDITING – A MANAGEMENT DEVELOPMENT DEVICE

I will not belabor the obvious. Everybody is *for* management development or executive development these days. Any sane industrialist today, given his choice, would prefer to be against motherhood than against management development.

I don't propose to inflict upon you the fundamentals of these programs. For our purpose, suffice it to say two things:

1. Management of any large company today is a profession—and as a profession it needs development of something more than the Horatio Alger rise from office boy to president.
2. Management development, whether by formalized program or by any other name, is an inescapable responsibility of all top manage-

ment—only management can provide both the proper climate and the opportunity for men to develop themselves.

But having accepted these platitudes, all management is still faced with the difficult question of how to do it.

For example, should it be done by means of training courses? Certainly they help, but do not expect them to do the job for you.

Should it be done by three-month job assignments to show the trainee all phases of the business? This has its place, but do not confuse real experience with that pale substitute of looking over another man's shoulder while he bears the responsibility for decisions made in the heat of battle and the trainee smugly smirks at the "boners" which this "unenlightened character" pulls!

Should it be by longer duration job experience, of planned job rotation coupled with real responsibility? According to most of today's authorities, such a program is the "real McCoy," and it does make sense. But such a course of action requires compromise as to the number and types of job experiences which a man can get in one short business lifetime.

All I have said thus far is that there is no one way nor any easy way to adequate executive development programs.

It seems obvious that any top management which honestly faces this dilemma will recognize the golden opportunity which a broad gauge internal audit function presents for management development opportunities. What other function in a business naturally combines:

1. The freedom to move from department to department within a company—*if* your auditing is one of depth and not just aimed at accounting niceties.
2. The opportunity to see the interrelationships of a business as to sales, engineering, manufacturing, finance, and other phases at such a favorable bird's-eye view and in such favorable personal relationships with top management.

These are the types of assignments which an executive development staff planner dreams of—but seldom finds. The internal audit function has many of the answers right there ready and waiting.

I am suggesting, therefore, what may be a heresy to some of you. I am suggesting that significant as your prime function of protective and constructive service to management might be, in the long run, the value of internal auditing as a management development device may overshadow all else.

If you should decide to embrace this philosophy of internal auditing, however, be prepared to make compromises. Compromise will be inevitable as planned and frequent turnover—perhaps as often as every two or three years—will rob you to some extent of the technical accounting proficiency which career auditors would provide. But without such turnover you will not get the fresh, inquisitive viewpoint which new and intelligently analytical men must bring to the audit work to keep it from getting into a rut. One thing you cannot compromise on is a high-calibre staff which is capable of maintaining management's respect in the role of alert businessmen. Reputations are fragile things; they must be regularly renewed!

Additionally, I have another heresy to toss out. If you wish to adopt the internal audit staff as an executive development device, you must practice some sales promotion techniques designed to take your lights out from under your bushel baskets! As professional men you may wince. I hasten to assure you, therefore, I have nothing really flamboyant in mind. Just the discreet and restrained advertising of a well-done technical job coupled with a running series of intelligent but modulated questions or suggestions aimed at business objectives—not just accounting matters. This does not mean trying to grab credit for ideas or savings—a good idea which in any way emanates from an audit can be attributed elsewhere or shared with enough credit to go around. I sometimes think that, in stretching for "professional status," internal auditors may be patterning themselves too closely to the staid ethics of the certified public accounting field. I suggest your pattern should be that of the general businessman, not the CPA. And the businessman understands the value of advertising even when it is modest and in good taste!

A final thought regarding the significance of internal auditing to management development. Is an internal audit function aimed at management development objectives hard to set up and administer? It is. But so are all worthwhile objectives.

We have examined how management looks at you as internal auditors—first, as to what you can do for them as to business ideas—not as to accounting techniques. Second, as to what your function can provide the company as an executive development device. In either area the ultimate value of any internal audit function to management in general will depend largely on how far the program can go beyond conventional financial auditing.

At this point, gentlemen, should anyone venture to ask me "but how *far* beyond"—I could then only return to my opening statement and say, "How high is up, gentlemen, how high is up?"

HOW CAN THE AUDITOR ASSIST MANAGEMENT IN DEVELOPING ITS USE OF OPERATIONS RESEARCH?*

By BART C. KELLEHER

Controller, Eagle Pencil Company

It is the internal auditor's duty to familiarize himself with new and accepted techniques which are useful in solving management problems. One such technique is operations research, which is receiving increasingly wide acceptance. This article explains the fundamentals of operations research, how it can be applied, and how the internal auditor can help to promote its effective use.

INTRODUCTION

THE auditor who is constantly studying problems ranging from top management matters to questions of minor importance, who is constantly using his imagination towards the solution of these problems, and who is constantly trying to serve management better, can become familiar with the principles of operations research and fill a significant gap in management communications. There is a lack of communication between the executive, who is actually confronted with the operating problem, and the scientist, who is versed in the mathematical techniques employed in operations research. The communications between these two groups are weak because neither party actually understands the other. Therefore, if we have someone in the middle who can visualize the problems management is meeting in daily operations, and at the same time understand the concept of operations research, it is conceivable that he could play a part in developing the use of operations research within his company.

HISTORY

Operations research was a new term developed during World War II to describe the organized study of military problems, first employed by the British, using mathematical models and disciplines to arrive at the best solutions. During the war years, all the efforts of the operations research

* Delivered at a North Jersey chapter meeting.

scientists, both in England and the United States, were spent in the study of military problems. Not until 1946 was a special research unit established by the British Board of Trade to study some of the broader problems of peace-time industry by applying the statistical and scientific methods which, in the form of operations research, proved to be so valuable during the war. From this point on, the interest in operations research gradually increased. Within the last three years, especially, we have seen a tremendous growth in the attention being paid to operations research as applied to industrial problems. For example, in 1955 the Case Institute, one of the pioneering groups in the development of operations research, received inquiries from more than 3,000 companies regarding the use of operations research and how they might learn more about these particular techniques. It is already evident that operations research can be a valuable tool for management and will undoubtedly prove to be more valuable in the future.

NATURE AND TECHNIQUES

Now, just what is operations research? Usually, anyone discussing this subject avoids definitions because "operations research" means so many things to so many people. However, an attempt to define it in a general way should provide a basis for continuing this discussion.

In the past, the operating executive was forced to rely on his general knowledge of the problem and on hunches to determine what path to follow. Usually, so many different factors were at play that the human mind could not absorb nor adequately interpret the effect and interaction of each part. Consequently, this left a wide area subject to human error. Operations research resolves the mass of information concerning the various problems into an orderly pattern and makes it possible to apply scientific and mathematical techniques in their solution. It enables one to study each element of the problem while, at the same time, keeping in view the over-all results desired. The net effect is that an optimum result can be obtained without minimizing any one particular factor. Alternative courses of action can be evaluated and compared to determine which is the most desirable.

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Two major developments are making the use of operations research more practical. They are:

1. A tremendous amount of information is becoming available through the internal data collection activities found in each company and through numerous governmental and research groups that issue statistics available to the public.
2. Electronic equipment is making it possible to process this mass of information and perform statistical and analytical work which was previously too costly to undertake.

Thus, operations research, coupled with the improvement of data collection and the recent development of electronics, is continuing the trend towards more research into industrial problems and the development of better administration through the improved use of facts.

In practice, operations research is a process of looking for the appearance of regularity in apparently unrelated or random activities and converting this pattern of regularity into a model which is usually expressed in mathematical terms. Certain situations have been encountered a number of times, and from the knowledge gained in processing these problems, typical models or techniques have been developed. Some examples of such models are: Linear programming, Queueing theory, Game theory, and Symbolic logic. Many of these disciplines are not fully perfected for use in complex or generalized situations. However, they promise to be of increasing importance. As an illustration, the Game theory has been applied mostly to military problems, but some success has been met in studying the timing of advertising using this method of analysis.

The most widely used technique at this stage is probably linear programming. This is a method for determining the minimum allocation or use of limited facilities to gain a desired objective. Linear programming also has certain characteristics which limit its use. First, the problem under study is assumed to have a linear or straight-line relationship between the variables involved in the problem. Second, the limits of variation are assumed to be fairly well defined. And finally, the volume of calculations is extremely large and makes an electronic computer almost a necessity. What actually takes place is that every conceivable combination of variables is studied to determine which combination provides the result desired. This might be the sum of actions which create the highest profit, the lowest cost, the shortest distance, or whatever particular result is desired.

Mr. Russel Ackoff, in the first seminar in operations research given at the Case Institute of Technology, specified five principles of operations research:

"1. *The Principle of Measurement*—Wherever possible, measure the properties of all variables that count and the relationships between them. Where measurement is not possible, make it possible.

"2. *The Operational Principle*—Take into account, not only the decision maker, but all those who carry out the decision and are affected by it. Include also the instruments and environments involved in the operations. Consider these not in the terms of a fixed set of properties but in terms of how they change over time.

"3. *The Feed-Back Principle*—Do not end the research with a selection of the proposed solution. Evaluate the proposal in action. Where it is not good enough, conduct further research. This involves a continuous interaction between all phases of the research and operations and continuous communications between all parties involved.

"4. *The Cooperative Principle*—Include on the research team representatives from as many areas of science as possible. Even include representatives of areas which do not appear to be directly involved with any aspect of the problem.

"5. *The Practical Principle*—Evaluate every phase of the Research relative to the research objectives. This requires an explicit formulation of the objectives of the decision maker and all those to be affected by his decision."

Operations research is a broad approach requiring precise facts, varied knowledge, and mathematical skill. As auditors we should be able to play a part on this research team, namely, to visualize the use of this approach to our own problems.

PRACTICAL APPLICATIONS

Now, just what is operations research accomplishing in industry? Numerous problems have been approached and either solved or brought nearer to solution using operations research. Let us now examine a few of these problems and demonstrate how the problem was attacked and what results were obtained.

One interesting project was completed for Seabrook Farms in southern New Jersey. This company processes 60,000 tons of vegetables each year; a part of these crops is grown on its own farms and most is frozen wherever possible, since that produces the maximum revenue. The problem was to get as many peas as possible harvested at the moment of maturity and to deliver them to the freezing plant without delay. The usual method was to test peas for maturity by shelling a few, to begin harvest a little before full maturity and to work around the clock, running up overtime costs, to try and harvest the entire crop, at a quality satisfactory for the freezing

standard. Those peas that fell below the freezing standard had to be canned. This cut the profits severely, and the high ratio of transient labor employed, because of the operational peaking, led to excessive labor costs. A number of proposals were made to assist in solution of this problem. However, operations research was used to study the problem in its entirety. The objectives were to minimize the harvest peak, cut waiting time, and maximize the harvest period to facilitate freezing schedules, all without increasing the plant capacity. What actually was needed was a harvest design that, projected backwards, would indicate planting dates to produce maturity dates staggered as desired. To accomplish this, the growing habit of the pea vine was studied and related to the changing temperatures of the season to come up with a number of growth units that might be expected at any particular time during the growing season. For example, these growth units accumulate at a rate of 10 per day in late March, 30 in mid May, and a peak of 53 in June, after which this daily total begins to taper off. Thus, one can very easily calculate when the peas should be planted to create a harvest on a particular day. For example, to get peas 2 days apart early in June, plantings early in March must be as much as 2 weeks apart. The new plan went into effect; night crews were eliminated; the labor force was stabilized; labor relations improved. The peas arriving for freezing became more uniformly mature, and forced canning was eliminated. Eventually, the data was reduced to a crop meter, which is a circular slide rule with which management can make sound decisions as to planting and harvesting. In this instance operations research, which is often considered a highly theoretical, mathematical approach, created a very practical result.

Another instance involves the study of the sales force for General Electric. The problem involved here was to determine how many accounts one salesman should call on and how often in a given period. Could a dependable answer be found? An operations team was set up, composed of three General Electric men and three from the Case Institute. To these men it seemed obvious that there were limits to the stimulation of sales from the investment of sales time. And it was assumed that a chart of the relationship between sales time and sales results would produce not a straight line, but a curved line leading to a plateau, showing an eventual deceleration in the rate of increase of sales as related to the increased sales time. With the help of management, accounts were classified by size, nature of business, location, and other known characteristics. Presumedly, members of any one class of customers would tend to react alike. Each salesman prepared daily time reports for each week day during a selected period, and the points were plotted on a chart for a particular class of customer, representing time spent and sales volume attained. These points turned out to compose a random scatter to which no sales response curve could be fitted. After study of these facts, one conclusion seemed inescapable. Within the range of num-

ber of calls being made in these districts, sales changes did not depend on changes in the number of calls. If that were true, then the number of calls might be cut, on the average, without losing sales. Further studies confirmed that there could be a considerable reduction in the average number of calls without affecting sales volume. This was the same as saying that each salesman could carry more accounts than formerly, without affecting sales per account and obviated an earlier management plan to hire more salesmen.

Other examples of the use of operations research cover the field of production scheduling, inventory control, the analysis of warehousing, the study of sales office potentials, predicting the optimum sales pattern of a new model, marketing and transportation scheduling by linear programming. One of the problems which has been solved most successfully through operations research is that of distribution.

One dramatic case concerns a national manufacturing company which had four plants and numerous warehouses located throughout the country. Linear programming was used to realign plant to warehouse shipments of a consumer product so as to minimize the total freight cost. Both plant capacities and warehouse demands varied. However, using mathematical concepts the operations research men set up their program. As freight rates or quantities changed, adjustments were made to keep freight costs to a minimum. The results of this study led to a distribution pattern which was radically different from the previous pattern established by the old line traffic men. Mathematics bore out the O. R. conclusions. One of the major points was that a factory in Pennsylvania originally shipped to a warehouse in Maine. After the study was completed, it was determined that if they realigned the shipments to cover different areas, a more efficient shipping system would be the result. However, it required that shipments for the warehouse in Maine would come from a plant located in the State of Washington. In other words, the study showed that the combination of costs for all shipments from all factories was the lowest even though the shipments going to the Maine warehouse were extremely high in cost.

A CASE STUDY

It so happens that at Ciba we are conducting a similar study of our distribution costs. It began when our company was discussing the possibility of establishing a new shipping warehouse. The opinion of the company executives varied with respect to the need for a warehouse and also where the proper location should be. Some studies had been made of certain specific cities, but it was extremely difficult to evaluate and compare one against another.

At this time we began considering the value of the linear programming technique to help us find the best solution. The project involved a tremen-

dous amount of work, because all factors, such as customer satisfaction, availability of shipping labor and freight forwarding facilities, and shipping time, had to be thoroughly studied and eventually incorporated into the matrix prepared from the data.

Therefore, before undertaking such a large-scale project, we decided to demonstrate the value of linear programming by producing concrete results on a smaller scale. We studied our existing shipping setup to determine whether freight costs were as low as we could make them. To accomplish this, we reviewed all the available data concerning our shipping operation and prepared certain summary information which we felt might provide an approximate answer. We soon found the information had been generalized to such an extent that the variability had been destroyed and this first attempt was chalked off as a failure.

We then retraced our steps and began to study anew how to approach the problem and gather more precise data; this, as we mentioned earlier, is an important factor in using the operations research approach. Finally, we convinced management that we should conduct a survey of our shipping operation for a short period of time and gather precise, detailed information concerning our shipping activities. This survey lasted approximately two months, and the period covered was substantial enough to insure reliable results. The personnel at each warehouse noted information such as weight, destination, freight cost, and special handling, for every shipment. This data was then summarized to come up with a composite cost and weight for each type of shipment to 233 areas in the country served by the three branches. Up to this point we had very closely defined each element of the activity under study and now felt we could prepare the linear programming matrix to begin our real analysis of the problem. At this stage, we found that the matrix required to absorb all the data we had collected was tremendous and that certain other information, such as the split of shipping labor time between classes of shipments, would be needed. This latter information was impossible to obtain and it was agreed impractical to attempt this matrix evaluation. We then reanalyzed our data and summarized the information further, but still retained the variability we required. The result of this summarization was a composite weight and cost per pound of shipment to a specific destination.

We were attempting to arrive at answers to certain specific questions. The first was: Using our existing shipping force and warehouse locations, can we reassign our shipping destinations to arrive at a lower total freight cost? The second question was: Can we rearrange our shipping force, possibly increasing one branch and reducing another, and increase our shipping efficiency and at the same time attain a still lower freight cost? We also

expected to obtain other information useful as a criterion to compare the shipping efficiency of one branch against another, and the effectiveness of our distribution methods in each branch.

The reason we selected this as our first operations research project was that management was considering the advisability of establishing a new warehouse; this we felt required some action. However, there were equally important reasons that actually caused us to select this distribution problem for our study. We believed that operations research could be successfully used as demonstrated by others who have used linear programming to improve their distribution arrangement in this problem. Second, distribution costs have been increasing and are expected to go higher. Thus, by selecting a project which is suitable for this technique and a subject, reducing distribution costs, which is of definite interest to our management, we enhanced our chances of success—and—success on our first project would entrench the use of operations research and enable us to propose the use of O. R. to attack other problems.

THE INTERNAL AUDITOR'S ROLE

Now, what might the auditor do to assist management in developing its use of operations research? The first step is to study available literature. Publications are issued on this subject by the Case Institute, M.I.T., the Journal of the Operations Research Society, and many others. Reading this material will provide the auditor with some detailed background and more information about operations research and how it might be applied. There are numerous illustrations of what other companies have done, what problems they have tried to attack, and how successful their efforts have been. After gaining this knowledge, the auditor can then review his audit program to determine what areas in his company are trouble spots. We are thinking not only of internal check and control at this point, but also of operating situations which appear to be in need of improvement. For example, the area might concern scrap or waste, the handling of materials or any situation which is under the surveillance of the auditor. After selecting the problem areas, the auditor can examine these problems in light of the information he has gained by reading about operations research to determine whether or not there is a possibility of finding a solution through the use of operations research techniques.

At this point the auditor has probably visualized the problem, what operations research approach might be used, and possibly what data is required to assist in the project. He may then disclose the facts concerning the operation and the possibilities for improvement, and point out the operations research approach that might be used. He may even suggest an outline of the project that might be undertaken. We do not intend to give the im-

pression that the auditor would undertake the project himself. Rather, he would recommend that the project be undertaken and that someone qualified to study the problem from the mathematical viewpoint be brought in. If the auditor's only achievement is to have stimulated the interest of management in O. R., he has performed a valuable service. There are probably a number of other things that could be recommended; however, each one of us has his own particular method of operation, his own audit program, and of course problems which are peculiar to his own company.

It will probably take a long time for O. R. to become fully implanted and in full use in many companies. It is a new field, and it has limitations at this time. But it also has value. I believe that auditors should become familiar with operations research, so that these techniques can be applied to problems within their own companies wherever it appears to be useful.

WORKING PAPER TECHNIQUES AND REVIEWS*

By RICHARD CARROLL

Central Auditing Department, Union Carbide Nuclear Company

It has been said that a person who produces good working papers produces prima facie evidence of a well performed audit. However experienced an auditor may be, he can generally still find ways of improving his working papers. The following article is a valuable case study of instructions to auditors for the preparation of their working papers and deserves careful attention by the reader.

INTRODUCTION

AUDIT work papers are the source of an auditor's opinion of accounting records which he has examined. The fundamentals of working paper techniques are similar regardless of whether they are internal audit, public accounting, or governmental agency work papers. Care should be exercised in the preparation of work papers as they may be subject to review by third parties. The work papers of our department are subject to review by the Atomic Energy Commission audit section and the General Accounting Office at a minimum. It is also quite possible that work papers may be presented as evidence in contract litigation. As our work papers are subject to review by other qualified auditors, we should be particularly careful that they are complete enough so that they can be interpreted by these third parties with a minimum of questions.

MECHANICS OF PREPARATION

Working papers should be prepared on paper of uniform size. We use standard seven- and fourteen-column analysis pads and regular lined pads. There should be no odd-size sheets, scraps of paper, etc., in our working papers. If it is necessary to include an odd-sized paper in the working papers, it should be pasted to one of the standard-size sheets. If it is desired to retain adding machine tapes for the work papers, a good practice is to place the tapes in an envelope and paste the flap of the envelope to the back of the work sheet, overlapping the body of the envelope to the front of the work sheet. A description of the tape is then written on the envelope.

* A paper presented to the Central Auditing Department, Union Carbide Nuclear Company, Oak Ridge, Tenn.

Work papers should be headed up with the title of the audit, a brief explanation of the content of the work paper, and the period covered by the audit work. It is customary for the auditor to place his initials and the date the work was performed in the upper right-hand corner. Since our papers are bound at the top, it is preferable that the initials be placed in such a position that they can be read when bound. Space should be allowed in the lower right-hand corner for the review stamp. In order to avoid confusion, only one subject should be covered on a work paper. Every effort should be made to prevent "crowding" of the work paper. An axiom frequently heard by auditors is that "paper is cheaper than time." A paper that is "crowded" takes more time to review and is more difficult to follow than one well spaced. Only one side of the work paper should be used. Sometimes notes are made on the back of work papers in an emergency, but they should be transcribed to the front as soon as possible. Any writing on the back of a work paper should not be regarded as a part of the work papers unless there is a notation on the front specifically incorporating the writing into the work papers.

Before preparing a work paper, the auditor should consider the most effective way of presenting the work done. Each work paper should serve a definite purpose in performing the work called for by the audit program. The basic working papers used by an auditor are schedules, analyses and narrative comments. Palmer and Bell define a schedule as a list of items constituting some major class or group, such as details of cash and the component balances of controlling accounts. They go on to say that the function of an analysis is, as its name implies, analytical; it is employed to classify or analyze the entries in an account that result in its balance—the composition of which may be shown in a schedule. For instance, a schedule might be prepared of the details of property owned at a particular date; but if one desired to examine and classify the entries in a single "property" account as between land, buildings, machinery and equipment, furniture and fixtures, and automobiles and trucks, an analysis would be required. Frequently, both functions can be combined in one work paper by proper use of columnar headings. Due thought should be given to the number of columns required, especially if there is a possibility that the work paper may be expanded. A physical inventory test sheet may later be expanded by indicating unit cost, the dollar value counted, the dollar value per the records, the difference and, possibly, room for comments.

In many cases, it is necessary to use two or more pages for a schedule. The preferred technique is to foot each sheet separately and to summarize the total with appropriate page reference on the last sheet. In case of changes, it is then only necessary to change the pages affected and the summary sheet. If subtotals are used, one change requires the correction of every

subsequent subtotal. The usual practice is to draw a line after a series of figures to be footed. The final figure on a schedule or analysis is usually underlined twice. Public accounting firms generally do not require a statement by the auditor preparing a working paper that the schedule was footed or the calculations were checked. It is presumed that an auditor preparing an original work sheet is mechanically correct. However, if a schedule has been prepared by those being audited, the auditor should test the mechanical accuracy of the schedule to the extent he deems necessary.

Each work paper should contain the purpose of the paper, which is usually indicated by the title, the extent of the verification, the source of data used, the period covered by the test and a conclusion. The extent of work performed may be shown by the percentage of transactions tested to the total transactions for the period reviewed or by indicating the total value of transactions tested and showing the amount not tested by tying into a control figure. It is essential that the over-all acceptability of the amount being tested be verified. A test of transactions without the total of the transactions being tied into a control figure is valueless in any audit related to the general ledger or subsidiary ledgers.

To indicate the extent of verification applied to data in the work papers, it is customary to place distinctive tick marks close to the figure being verified. These marks are then indexed on the work sheet with an explanation of their meaning. Some auditors prefer to use a standard set of tick marks uniformly throughout a job. However, it is more common to allow each auditor to use the tick marks he finds most convenient at the time he prepares his work paper. In this case he must explain each mark on the work sheet. The use of standard marks for a set of papers creates many unnecessary obstacles. The list of symbols used would become very long in some cases and create a strain on the imagination to devise marks that would not be confused with others. Also, everyone on the job would have to memorize the standard meaning of the marks and probably have to clear with the in-charge auditor every time he used one. In most cases it is desirable to use colored pencils for marks because it causes them to stand out on a work sheet.

In many cases a narrative statement of work done can be effective, especially if internal controls are good. A narrative statement can frequently eliminate excessive scheduling. For example, in the examination of

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receiving reports it is not necessary to list every receiving report examined. A narrative which showed the sequence of receiving reports examined as related to the sequence of receiving reports issued for the period covered would adequately indicate work done where prenumbered receiving reports are used. Any exceptions taken would be shown in detail on the working paper. Exceptions taken in the course of an audit should be clearly and specifically set forth in the working papers. In the absence of any statement of exceptions taken it is presumed that the auditor has found the situation satisfactory. The disposition made of all exceptions should be clearly recorded in the working papers. Minor clerical errors can be called to the attention of the department clerk and corrected on the spot. If the exception is of a material nature, careful handling is required. All available information should be restudied; then, if the auditor is positive that he has a major exception, he should bring it to the attention of the audit supervisor for further action.

Working papers carried forward from previous audits should be noted and a notation of the papers carried forward should be placed in the previous year's file. In addition to the regular work papers for a specific audit we maintain a carry-forward file for all information pertinent to the audit coming to our attention during the year. Time can usually be saved by using copies of departmental reports and any other schedules that may be available. Usually, punched card tabulating runs can be obtained which show the details being tested. Schedules and analyses prepared by the department should be tested for mechanical accuracy and tied in to the general ledger or cross-referenced to other independent reports, if possible. If internal controls are effective, punched card tab runs may be accepted without mechanical verification if there is no reason to suspect the accuracy of the run. For example, if a 100% test is made to the property record cards of a tab run for a particular department, it would not be necessary to foot the tab run. However, if any doubt exists in the auditor's mind as to the system of control, then he should foot the tab run. In our contract audit work we should foot the tab runs until satisfied that they are accurate. However, after being satisfied, we should still make spot checks of the tab runs.

GENERAL TECHNIQUE

Some accounting firms have required that work papers be prepared in ink. However, pencil is the most widely used medium as errors can be corrected easily. It goes without saying that work papers should be as legible as possible. Probably the most common difficulty along these lines is the working papers for a physical inventory. Although, generally speaking, work papers should not be recopied, it is permissible to recopy physical

inventory work papers which become soiled in the course of the physical inventory. This should be done carefully to avoid the possibility of making transcription errors. It is customary not to use dollar signs on working papers, but all quantities should be noted by type of unit used.

ARRANGING AND INDEXING

Working papers may be bound and fastened in binders, fastened and filed in folders, or filed unbound in folders. Since our work papers will eventually have to be bound for filing with property records, we bind them at the completion of the audit. In public accounting practice the general ledger trial balance is the "backbone" of the audit, and all working papers are usually indexed to the general ledger account being verified. We generally use the audit work program as the basis for indexing the work papers. There is no prescribed method for indexing the working papers as long as the method is logical. A convenient method is to indicate the section of the program being covered with the program index reference lightly in pencil. When the papers are assembled for final review, they can be arranged in audit work program order. After all the papers have been properly arranged, they can be numbered in sequence in colored pencil and be indexed to the work program. All supporting schedules to a control schedule should be properly cross-referenced within the working papers. Cross-referencing, particularly of details to control figures, should be as comprehensive as possible. Although the actual page number to be cross-referenced is not known at the time the working paper is prepared, it is good practice to write in a reference leaving the page number blank. At the time the papers are assembled for final review, the in-charge accountant can fill in the cross-references. It is the duty of the assisting auditors to indicate the necessary cross-references to the best of their ability.

TYPES OF WORK PAPERS

Included in our sets of work papers will be:

1. An assignment sheet.
2. Audit work program.
3. Audit questionnaire.
4. Record of time spent.
5. Detail working papers.
6. Memorandum of work to be completed—if necessary—or followed up.
7. Review notes and disposition.
8. Pencil draft of report.

In preparing working papers we should keep in mind that matters reported should be material. Maurice Peloubet, in his book Audit Working Papers, states: "Care must be exercised to exclude immaterial data, since

there is always the possibility of concealing a material fact or a material relationship under a volume of immaterial data." Two other statements by the same author are also worthy of note:

"Governmental accounting must always differ in some respects from commercial accounting. The differences are caused principally by the different sources of funds—an appropriation instead of an investment or retained profits—and by a different type of accountability—to Congress or the Bureau of the Budget instead of to proprietors or security holders. But these differences do not affect any accounting or auditing fundamentals."

and

"Conditions may change in the future and practice may change with them, but it is believed that the method of applying the practice of the day to the audit in hand and the basic methods of preparing schedules and work papers will not change in essence."

REVIEW OF WORKING PAPERS

The function of reviewing work papers is one of the most essential parts of an audit. The reviewer should be one who has the necessary experience and qualifications to determine that the audit was adequately performed and that the audit was made in accordance with generally accepted auditing standards. The person reviewing the work papers should also review the report. The reviewer should be complete, systematic, and critical in his review of the papers and have any deficiencies, inconsistencies, and obscurity in the working papers corrected. The review should also point out to the auditors any unnecessary working papers or cases where a narrative statement might eliminate unnecessary detail.

REVIEW PROCEDURES

Palmer and Bell set forth certain review procedures which might be modified to our purposes as follows:

1. The audit program should be examined to ascertain that every item has received the necessary attention.
2. Every work paper should be reviewed.
3. It should be ascertained that necessary verifications have been made.
4. It should be determined that assertions made in the report are properly substantiated in the working papers.
5. The significance of percentages, ratios, turnover rates, etc., should be considered.

In making his review the reviewer should be alert to the possibilities of fraud. Some common deficiencies noted over a period of years by Palmer and Bell are:

Cash

a. Desirability of clearing noncash items not given sufficient consideration.
b. Failure to complete program for verification of cash balances or programs for tests of cash and other transactions.

Accounts Receivable

a. Failure to follow up differences disclosed by confirmations.
b. Absence of conclusion with respect to the adequacy of the reserve for doubtful accounts.
c. Events subsequent to balance sheet date not adequately investigated (collections, credit memos, allowances, etc.).

Inventories

a. Scope of examination with respect to quantities, prices, and extensions not stated.
b. Absence of information relating to adjustments of inventory accounts required as a result of physical inventory.

General

a. Failure to note in the working papers disposition of questions raised in the course of the examination.
b. Failure to ascertain all facts with respect to relatively important items.
c. Failure to indicate clearly the manner and extent of auditing procedures applied and conclusions reached as a result of work performed.

THE ROUND TABLE

Edited by DONALD T. BARBER

"New Horizons in Internal Auditing" can be achieved faster and more surely if we continue to adhere to some of the fundamentals upon which our INSTITUTE is founded. One of them, and it is the one that has been included in our Corporate Seal, is "Progress through Sharing." The Round Table is provided as one way of sharing internal auditing experiences of the day to day situations that occur in our own internal audit departments. Most of the contributions are case examples that have resulted in savings or efficiencies, or for telling about some special auditing service to management.

The names of contributors will be published only with permission. Send your contribution to:

The Round Table
The Institute of Internal Auditors
120 Wall Street
New York 5, N. Y.

* * * *

FRAUD THROUGH EXPENSE REPORTS

The audit of employees' expense reports has been a function of our audit staff for several years.

It had been our practice to review each month's reports after they were recorded in the employees' account and before they were filed. In this way, once a report had been reviewed and reconciled to the account it was filed and forgotten.

By a chance review of total travelling expenses for our insurance department a series of duplicate travel expenses for one employee was observed. Then, the obvious weakness in our practice showed up. It was the possible overlapping of expenses, particularly those for the costs of travel.

Now in addition to our monthly review of expense reports, an over-all audit is made at least twice a year of each individual's folder of expense reports. Thanks to an innocent request from our insurance department we uncovered a serious defalcation. In addition, we are now assured of a more complete review of employees' expense reports.

IDLE DOLLARS

A year or two ago while making an audit of cash, we analyzed our tellers' requirements. As a result of our findings, recommendations were made to decrease our cash on hand.

Since that time we have called attention to the excess cash carried by many of our tellers. By doing this we have been able to reduce our cash in bank from the previous year by some 20 to 60 percent. With the Federal Reserve rediscount rate at 3½%, every available dollar in our reserve accounts means considerable savings.

We are now furnished with a daily list of cash held over by each teller. As the tellers become lax and tend to hold more than a designated maximum, this is called to the head teller's attention.

Because of the attention focused on this more or less routine function, the head teller and those under his control look upon the maintenance of our cash at a minimum as a challenge. Rarely have we been in a tight spot because of our efforts in this direction.

Two things have been gained through strict control of cash:

a. More dollars are on deposit, or available for investment.

b. Exposure to loss at each teller's position has been reduced to the minimum.

How long has it been since you reviewed the cash required in your company's daily operation?

J. C. McKee, Jr.
Auditor, The First National Bank
of Miami, Fla.

* * * *

THE PSYCHOLOGY OF DEFALCATORS

In going through some old issues of The Journal of Accountancy, I read a rather interesting study in connection with the psychology of defalcators.

A study was made concerning the reasons for defalcations and embezzlements over a considerable number of cases. No general pattern was found as to the direct reason, but the author came up with a summary which I thought was quite interesting.

This summary applied to every case, depending upon the personal variations:

"Trusted persons become trust violators when

1. they conceive of themselves as having a financial problem which is nonshareable;
2. have the knowledge or awareness that this problem can be secretly resolved by violation of the position of financial trust;
3. are able to apply to their own conduct in that situation, a verbalization which enables them to adjust their conceptions of themselves as trusted persons with their conceptions of themselves as users of the entrusted funds or property."

Probably the only way in which we could use this study to our advantage is to encourage employees to believe that their financial problems are shareable—either with yourselves or with some other individuals of their acquaintance.

Well worth thinking about—anyway!

An extract from a letter from the controller to his audit department.

* * * *

RECEIPTED FREIGHT BILLS ARE UNNECESSARY

During the audit of a traffic department it was found that in obtaining receipted freight bills from railroads and truckers a great deal of clerical work was expended. Even the item of postage was consequential.

This was the procedure for processing freight bills. After the bills were okayed for payment, a voucher was prepared and a check issued. The freight bills and check were then sent to the carrier with a request for receipt of the bills and their return. The payment vouchers were set aside in a temporary file to await the return of the bills. Upon their return from the carriers, the bills were checked with lists to ensure that all bills were returned or otherwise accounted for.

As a result of enquiries and discussions with the traffic department, the carriers, and others in our industry, these facts were established.

a. Whenever the railways require a receipted freight bill to support a claim, they will receipt the particular bill as the need arises.
b. A blanket indemnity bond policy can be obtained and filed with them.
c. Only a few companies require each and every freight bill to be receipted.

d. In our industry, other companies had heretofore dispensed with the procedure of obtaining receipted freight bills.

When these facts were brought to the attention of the management, a directive was issued to discontinue the practice of obtaining receipted bills. Savings have resulted in clerical time and postage expense.

* * * *

THE DOs AND DON'Ts OF INTERNAL AUDITING

In the office used by our internal auditors we have lettered up some large wall charts with what we have called the Dos and Don'ts. Often when we are discussing some problems concerning an audit, one of the group will point out that the course of action is not in agreement with these basic tenets. When this happens, we discuss it further and almost always come to the conclusion that the best thing to do is to follow these simple rules:

DOs

1. Plan your work before you start it.—This helps to make sure that you set about each assignment in the most effective manner.
2. Keep a record of your findings.—Your working papers help you to remember the facts and to substantiate them in case of question.
3. Make sure your facts are correct.—You will often receive wrong information. If it is not checked, you may be embarrassed or discredited.
4. Prepare and use audit procedures.—These serve as check-lists and help you to delegate work to your assistants.
5. Familiarize yourself with agency operations.—Only by a thorough understanding of the operations and related regulations can you perform an effective audit.
6. Keep close management contacts.—By close association with the management you will learn its problems and get the right emphasis in your reviews.
7. Keep a management viewpoint.—Look at things through management eyes. This will protect you against too low-level an approach in your work.
8. Recognize channels.—Observe organizational lines to prevent personal embarrassments and conflicts.
9. Review the organization.—Many weaknesses you are likely to discover may arise from the misalignment of authorities. Organizational changes may be needed.

10. Review the methods.—Weaknesses can often be cured by changes in methods and procedures rather than changes in personnel or organization.
11. Review performance.—An examination and appraisal of performance and accomplishments will often lead you directly to the source of areas needing improvement.
12. Examine the nature of errors observed.—Find *why* they happened and *why* they escaped attention. Seek a method of prevention rather than cure.
13. Be tactful.—Your work will often reveal shortcomings in the work of others. Be helpful—not harsh—in disclosing them and suggesting improvements.
14. Submit reports.—Your efforts will yield results only if you pass information, either orally or in writing, to the persons who need that information to take action.
15. Hold audit conferences.—Discuss your findings and recommendations with the people whose activities are under audit. Their viewpoints are generally illuminating.
16. Be convincing.—Be sure your recommendations are sound before you present them. Then make them convincing. Make others believe in and accept them.
17. Get action.—The internal auditor's work will often lead to a need for action. Be sure you get that action.

DON'Ts

1. Never give orders, except to your assistants.—Once you order the execution of action, instead of acting as an adviser, you lose your independence.
2. Don't burden the management with detail.—Get it settled at the routine level and confine your reports to management to matters of significant interest.
3. Don't seek control for its own sake.—The cost of introducing an ideal system of control may often exceed the value of the benefits it would produce.
4. Don't be sarcastic or unduly critical.—This will put people in a frame of mind to reject your recommendations and thus defeat the entire purpose of your mission.
5. Don't make accusations.—Just find the facts, check them and report them. Accusations may be incomplete or unsubstantiated and unjustly damage reputations.

STUDENT'S DEPARTMENT

Articles in these pages are compiled because of their special help and interest to students.

Edited by C. A. WINDT

WATCH YOUR LANGUAGE!

Writing clear, readable audit reports is certainly a most important adjunct to successful internal auditing. Good audit reports add stature to the auditor because of his ability to get his ideas across to management with maximum effectiveness. There is no secret to the ability to produce readable writing, but it does take constant practice and attention to certain fundamentals.

The reader's mental processes of absorbing information are directly related to clarity in report writing. Psychologists tell us that the mind absorbs only one idea at a time. Consequently, that idea must be presented simply, briefly, and definitely to be readily understandable. Here, briefly, are certain basic elements which lead to clearness in report writing:

Simplicity—In so far as possible, avoid the use of highly technical expressions. Use simple sentences and common, familiar words. Do not try to display your vocabulary and knowledge of involved composition.

Brevity—Use the least number of words consistent with the expression of a complete thought. A lengthy sentence or paragraph cannot be condensed merely by eliminating a certain number of words. To be concise and exact in your writing requires hard work and a constant attention to word meanings.

Definiteness—Choose words and construct sentences to make your statements precise, specific, exact as to meaning. If transactions have been reviewed, do not say appraised, or if accounts have been examined, do not say analyzed. Each sentence should have a purpose and a meaning that is readily apparent.

Sequence—Determine the proper arrangement of your thoughts. Briefing a comment before writing often helps in properly organizing the material. Facts presented in a natural or logical order tend to lead the reader to a desired conclusion. Poorly developed comments may

be indicative of poor auditing and a failure to properly explore all possibilities of a situation.

Careful attention to writing details and application of the few basic techniques which have been outlined should lead to the development of significant, interesting, and well-worded audit report comments—a prime objective for every internal auditor in furthering his service to management.

THE PLACE OF THE INTERNAL AUDITING DEPARTMENT IN THE COMPANY ORGANIZATION*

By RONALD WOODS

Lybrand, Ross Bros. & Montgomery

The position of the internal auditing department in a business organization has long been a subject for discussion. The following article evaluates certain of the organizational factors which bear on the performance of an effective internal auditing program. Auditing departmental policy with respect to other employees and company components is also discussed.

THE efficiency and effectiveness of an internal auditing department is largely dependent upon its position within the company organization, and the relationship which exists between its personnel and other company personnel. The place the internal auditing department assumes within the organization is a matter of technical arrangement of authority, over which the auditor can usually exert very little influence. The relationship which exists between company personnel and the auditor is more general in nature, and pertains directly to the conduct of the auditor in his day-to-day work.

The technical arrangement of the internal auditing department within the organization is basically the question of to whom does the department report. There are several factors to be considered in satisfactorily resolving this question. In order that the auditor may best serve management, the department should be accorded as much independence as can be obtained without loss of purpose. This independence is essential in order that the

* Winner of the First Place Award in the 1957 Essay Competition conducted among senior accounting students at Wayne State University. Sponsored by the Detroit chapter, INSTITUTE OF INTERNAL AUDITORS.

auditor will feel free to appraise and constructively criticize all components of the business without fear of retaliation, or of having such appraisals buried by his superiors.

It is impossible to say that the department should be responsible to the treasurer, or any other individual, purely because of the title involved. It is necessary to view the situation from the standpoint of the functional position and responsibility of the individual, rather than his title. No two companies are alike, and functions and responsibilities vary accordingly, making the problem individualistic in each instance. It has been suggested that the internal auditing department report directly to the board of directors. Such an arrangement promotes independence, but it could also be a disadvantage in carrying out the ultimate purpose of the department. By reporting to the board of directors, the auditor is removed from a direct responsibility to management, thus defeating his purpose of providing a service to the management immediately in charge of operations.

Because the internal auditor is primarily working with accounting data and records, it is desirable to have him report to an official of the company not directly involved in the accounting operations. The closer the auditor is aligned to the president, the greater the independence, without loss of purpose. This position may be strengthened by having the board of directors set minimum standards for the internal auditing department which operating management would not have the authority to countermand.

Organizational structure alone will not assure maximum effectiveness and efficiency of the internal auditor. An attitude must exist throughout the organization which encourages critical analysis and the desire to give careful consideration to, and effect prompt disposition of, recommendations made by the auditing department. Because of the possibility of retaliation, irrespective of his independence, the auditor needs freedom and support in performing his work. Such support or cooperation is essential to obtain the necessary information required by management; without it, a great deal of time and effort could be wasted.

The caliber of the internal audit staff also deserves emphasis. The benefits to be derived from an internal auditing department bear a direct relationship to the caliber of the auditing staff. A staff which possesses freedom and support, but which lacks technical ability and training, will not provide management with the best type of information. Every effort should be made to maintain a staff of well-trained auditors who are technically competent.

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The internal auditor can do a great deal to obtain the cooperation of the other employees. He must impress upon the employees that he is actually helping them. Employees who do not understand the objectives of the auditor tend to become defensive and resentful. By explaining the purpose of his assignment, and the benefits which will accrue to the company, the auditor should be able to convert this resentment into a cooperative attitude. This relationship must remain within reason, however. Should the relationship become too intimate, the auditor may lose his objectivity and permit personal friendship and bias to enter his work. The effects of personal friendship and bias can be just as bad as the effects of an uncooperative attitude.

Care must be exercised to avoid dealing in personalities in the auditor's critical analysis. In addition to lessening the value of the report, the auditor will create hostile attitudes and sustain possible loss of face among fellow employees, if he is not entirely impersonal. The quality of objectivity is extremely important as it relates to the head of the internal auditing department. He must be able to get along with all department heads and company officers; at the same time, he must possess the ability to make effective criticisms and recommendations. He must also be influential enough to see that prompt and satisfactory disposition is made of the auditing department's recommendations.

In order that operating management may receive maximum benefit from its internal auditing dollar, it is essential that it place the chief auditor in a position of relative freedom and equip him with the caliber of personnel required. The auditor's organizational position should be strengthened by statements of company policy. In addition, the policy of the auditing staff should be to strive for cooperation with operating department employees in the course of performing their services. The end result of such organizational alignment and operating policy will materially increase the value of internal auditing's service to management.

THE APPLICATION OF INTERNAL CHECKS *

By MERLE R. JORDAN

The auditor examines the nature of internal check and the part it plays in maintaining a good accounting system. The roles of the public accountant and the internal auditor in appraising internal check are also considered.

THE growth in size of various businesses, the wider delegation of authority and responsibility which has accompanied it, and the increased reliance on accounting data have all combined to increase the importance of internal checks in accounting operations. In the public accounting profession there has also been a growing concern over the matter of internal check because of its relation to the scope of audit coverage. The fact is that an outside auditor cannot practically review all the detailed transactions but must rely to some extent upon existing internal checks.

Internal check refers to the methods and practices of all kinds whereby the accounting forms and records, and the procedures affecting their use, are coordinated and operated in such a manner that management derives from the accounting function the maximum utility for its purpose of information, protection, and control. It is generally agreed that the accounting system must establish accountabilities by which individuals, departments and functional divisions may be held responsible for values under their control. The basis is then established for minimization of loss from fraud, error, carelessness, or most forms of inefficiency. It is thus that management's responsibilities for stewardship are protected.

Therefore, internal check is the device by which this objective is accomplished. An unsatisfactory procedure which impairs the effectiveness of the business operation represents a weakness in the system of internal check. Internal check is then a measure of accounting efficiency. For example, assume operation of a storeroom without perpetual inventory records. There is no value accountability over the storekeeper, and there is a possibility of the misuse of products. Because the system does not provide adequate protection to management, it may be said to be a situation of poor internal check. Matters of internal check are those which

* Winner of the First Place Award in the 1954-55 Essay Competition sponsored by Indianapolis Chapter among third and fourth year and graduate students of Schools of Business Administration at major universities in state of Indiana.

concern the effective attainment of accounting objectives through the accounting system. They are not restricted to matters of fraud and error alone.

Certain basic ideas of internal check are usually considered to be of such general application as to almost attain the stature of principles. In the first place, it is held that no person should be in complete control of an important part of a business transaction. This point recognizes that the greater the number of persons who participate in a transaction, the better the chance for effective control. From the standpoint of the possibility of fraudulent acts, losses will be less likely because of the need for collusion between individuals. Collusion is always a possibility, but the natural hesitancy in suggesting fraudulent action to an associate serves to control this tendency. The more persons who participate in an operation, the less chance that there will be collusion. However, providing participants to obtain maximum control is subject to practical limitations because of the costs involved.

Another basic principle of internal check provides that no person should establish accountability over his own operations. Under such circumstances, clerical mistakes, intentional or otherwise, would not be detected. Consequently, a cashier should not both receive money and also do accounting work on the general books. Likewise, a store manager, responsible for a stock of merchandise, should not set retail values which fix the measure of his accountability. To establish accountability in such instances, independent proofs and controls should be used extensively.

Another control principle to be considered requires that responsibility be clearly fixed. Although original responsibilities may be delegated downward and fixed at every level, each responsibility must be independent, avoiding conflict of interests. The accounting records and procedures must clearly establish these responsibilities and show evidence of their creation and discharge.

Having discussed basic principles of internal check, we should now turn to the consideration of methods of attainment. First, are the accounting records. Double-entry bookkeeping is helpful in that it provides a useful framework on which to base control procedures and to a certain extent serves in the detection of errors. Accounting forms should be as simple and logical as possible. Make-up of the forms should lead to the desired actions and approvals required of the system. Control accounts and detail subsidiary records serve to minimize the chance of error and misfeasance. Second, ac-

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counting instructions must be complete and an effort made to attain clearness to avoid misunderstandings. A third point to consider is the effective dispersion of management information. A suggested solution lies in the standard distribution of information copies to all employees or in initialing circularized forms. A consideration of personnel factors includes proper selection and training of employees, and the maintenance of good working conditions, all of which are elementary to the attainment of employee loyalty. An important step in the system of internal check may be accomplished by rotating employees among the various jobs at given intervals. This brings to mind the age-old example of the bank teller who was afraid to take a vacation. A further step in the system of internal check involves bonding employees and the resulting psychological effect in encouraging employee honesty and careful operation. However, it is one thing to have a carefully planned control system laid out on paper and still another to have it operate effectively. This leads us to the subject of discipline and follow-up of errors and unsatisfactory conditions.

Assuming we have a good system of internal check, there still exists the human tendency to laxity which must be counteracted. It is necessary to develop a program which will provide an independent appraisal of the functioning of the system. The simplest type of program is one in which company officers make spot-checks of one kind or another of company operations. The effectiveness of this program is limited, however, because the verification activity is apt to be somewhat of a side line and, as a result, most likely to be neglected in the pressure of everyday business. The most common procedure is to establish an independent internal organization or to employ an outside agency to report on existing conditions.

To assure adequate control over all operations, larger businesses frequently employ all of the methods discussed in the preceding paragraph. The audit made by the regular outside accountant constitutes a very important method of testing and appraising the over-all system of internal check. The conduct of this type of audit involves scrutiny of internal checks because of the necessity to determine the extent of reliance to be placed upon company data and the extent of detailed verification to be required. Some psychological control is also found in the fact that company personnel have knowledge of the periodic presence of the outside auditor.

Lastly, and perhaps most important, is the work of the independent internal audit staff. This group of full-time specialists makes a considerably more detailed appraisal of the system of internal check; to a large degree, such appraisal has a beneficial effect on the successful operation of the system. The great advantage of intimate knowledge of company operations is significant in administering this program. The work of this group will nor-

mally exceed the limitations of the annual public accounting audit and could, under certain circumstances, be of material assistance to the outside auditor in the certification of company financial statements.

In summary, proper appraisal of the system of internal check is essential to the successful performance of every audit. The conclusions reached with respect to the individual parts become the basis for the general evaluation of the operations of the company as a whole.

AUDITING CASE STUDIES

SUBJECT: THE NECESSITY AND PURPOSE OF CONFIRMING ACCOUNTS RECEIVABLE

The following case study is one of a series prepared by the Internal Auditing Committee of the American Gas Association and Edison Electrical Institute.

The confirmation of accounts receivable balances is frequently a cause of customer irritation difficult to handle. This situation becomes more aggravated when confirmations are made by both the independent public accountants and the internal audit department.

The following case explains the underlying purpose for receivables verification and describes an effective means for minimizing customer complaints from this source. The article also serves to illustrate how coordination of the efforts of the public accountant and the internal auditor provides management with more effective control without duplication of auditing effort.

Although this case has specific reference to the problem as it relates to a utilities company, the solution could be similarly applied to any type of business where the continuing verification of a large volume of receivables is necessary.

ALTHOUGH this subject has been covered many times by discussion and in writing, we still receive inquiries from customers and surprisingly enough from employees of our company as to why confirmation letters are mailed to customers. Because of this it was decided to distribute a memorandum setting forth the principal reasons for the practice to key employees in the commercial and customer accounting departments, both for their own information and for answering queries made of them by customers. The following is a copy of such memorandum:

In connection with a recent test circularization of customers of one of the district offices made by the internal audit department requesting the customers to confirm the balances due by them, as shown by the records, a customer inquired as to why our company sent such a letter. Presumably other offices have received similar requests, and no doubt such requests will continue to be received. It has occurred to us, therefore, that a statement setting forth the necessity and purpose of the confirmation letters may be of interest and assistance to personnel of the commercial and of the accounting departments to whom such an inquiry may be addressed.

REGULATORY REQUIREMENTS

It is of course known that our company is subject to the supervision of the United States Securities and Exchange Commission as well as to other regulatory authorities.

Regulation S-X of the Securities and Exchange Commission governs the form and content of all financial statements required to be filed with it at the time the securities of a corporation are registered for issuance and in annual reports filed thereafter. Such financial statements are required to be examined by independent public accountants and accompanied by the accountant's certificate.

The Commission's rules regarding such certificates require, among other things, that the accountant's certificate: "(I) shall state whether the audit was made in accordance with generally accepted auditing standards; and (II) shall designate any auditing procedures generally recognized as normal or deemed necessary by the accountant under the circumstances of a particular case, which have been omitted, and the reasons for their omission."

STANDARD AUDITING PROCEDURE (AND PURPOSE OF CONFIRMATION LETTERS)

It will be recalled that the report of our independent public accountants, accompanying the financial statements shown in the annual report of the corporation, includes the following statement:

> "Our examination of the financial statements was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as are considered necessary in the circumstances."

The practice of circularizing customers to request direct confirmation of the balances due by them has long been an established auditing procedure. However, it was not until 1939, after the hearings by the Securities and Exchange Commission in the matter of McKesson & Robbins, Inc., and the issuance by the American Institute of Certified Public Accountants of its report entitled "Extensions of Auditing Procedure," that the afore-

mentioned practice became mandatory. In this connection it might be informative to quote from a pamphlet issued in 1950 by the American Institute of Certified Public Accountants (entitled "Audits by Certified Public Accountants—Their Nature and Significance") which includes the following statement with respect to this practice:

> "As with notes receivable, accepted practice requires the CPA to obtain confirmation of a representative portion of the balances of accounts receivable by communicating directly with the debtors wherever practicable and reasonable, and where the aggregate amount of accounts receivable represents a significant portion of the current assets or the total assets of the company. Experience has demonstrated that this procedure is generally practicable and reasonable and is the most satisfactory method of substantiating receivables. It should be noted, however, that the principal purposes of such confirmations are to establish the genuineness of the receivables, the proper recording of receipts and the accuracy of the balances, and to test the internal control, *rather than to determine the debtor's credit worthiness.*" (Italics supplied)

In the event that the audit procedure of requesting confirmation of accounts receivable is omitted by the public accountant, the statement of the American Institute of Certified Public Accountants includes the following:

> "In any case, the fact that receivables were not confirmed must, if they are material, be disclosed in his report even though he has satisfied himself sufficiently by other auditing procedures."

The aggregate amount of accounts receivable due from customers represents a significant portion of the current assets of our company. Therefore, our independent public accountants follow the generally accepted auditing procedure of obtaining confirmation of the balances of accounts receivable by communication directly with the customers, in accordance with the rules of the Securities and Exchange Commission and with the auditing standards pronounced by the American Institute of Certified Public Accountants.

COORDINATION OF WORK OF PUBLIC ACCOUNTANTS AND OF INTERNAL AUDIT DEPARTMENT

Under the prescribed auditing procedures the independent public accountant is required to perform a test confirmation of accounts receivable "even when test confirmations are made by a company's internal auditors." However, our internal audit department cooperates with the public accountants in the performance of the circularization of customers, which results in a reduction in this phase of the audit work performed by the public accountants. Arrangements are made to avoid duplication of the customers circularized.

METHOD OF CONFIRMING ACCOUNTS RECEIVABLE

Because of the large number of our customers and the volume of transactions, and taking into consideration the company's system of internal control, the circularization of customers is carried out on a test-check basis.

During each year a selected number of customers are requested to confirm directly to the public accountants the balances of their accounts outstanding at the time of the audit of accounts receivable. Supplementing this a similar test circularization is carried out by the internal audit department, and the customer is requested to reply directly to that department.

In making the selection of customers to be circularized, the internal audit department follows the practice of including in its circularization:

(a) Hand ledger accounts—(industrial, commercial, etc.)—
Generally all customer accounts in the particular district being examined that have large balances and some of those with small balances outstanding at the time of the audit are circularized.

(b) Machine billed accounts—(residential, commercial, etc.)—
Several hundred of these accounts for each district being examined are circularized, particularly accounts with arrears. In order that the test check cover a representative portion of the balances of accounts receivable, a small number of customers whose accounts are unpaid prior to the date the gross amount is due are also included in the test circularization.

(c) Customers' accounts written off (U. C. B. accounts)—
A representative number of these accounts is also circularized.

Two methods of confirming the customers' balances are used, *i.e.*, the positive method and the negative method.

The positive method is used with respect to the hand ledger and U.C.B. accounts. Under this method the customer is asked to reply directly to the auditors, stating whether the balance shown by the request is correct, and, if not, the balance he considers correct. The customer is also asked to furnish information which may be of assistance in locating any difference.

The negative method is used with respect to the machine-billed accounts. Under this method the customer is asked to reply only if the balance is incorrect.

In all instances the letter addressed to the customer states that it is not a request for payment of their account.

MANAGEMENT'S RESPONSIBILITY

The above comments have outlined the responsibilities of the independent public accountant with respect to the audit of accounts receivable.

It should be pointed out that the Securities and Exchange Commission has clearly stated that financial statements issued by a company are primarily the responsibility of the management, not of the public accountants. In view of this, it can be said that management also is concerned with audit procedures used to establish the genuineness of the accounts receivable from customers, the accurate recording of the transactions pertaining thereto, and to test the internal control. The functions of the internal audit department with respect to the circularization of customers provide management with a means for carrying out the aforementioned procedures.

READINGS OF INTEREST TO INTERNAL AUDITORS

Subject: MONTGOMERY'S AUDITING (Eighth Edition)

By: Norman J. Lenhart and Philip L. Defliese, Partners, Lybrand, Ross Bros. & Montgomery

The first edition of this standard work was published in 1912, and there have been continual revisions to keep pace with advances in auditing philosophy and practice. Beginning with sections on the services, qualifications and responsibilities of certified public accountants, attention is next focused on internal control. A brief section describes the responsibility of the internal auditor as a part of the internal control structure.

Subsequent chapters follow balance-sheet and statement captions, with detailed presentation in each chapter under the general headings of Accounting Principles, Internal Control, Auditing Procedures and Statement Presentation. Reference is facilitated by a detailed table of contents at the beginning of each chapter and by a comprehensive index.

A very comprehensive questionnaire on internal control (66 pages) is given as an appendix.

The Ronald Press Company
15 E. 26th Street
New York 10, N. Y.
Price $10. 766 pages

Subject: HOW TO GET THE BEST JUNIOR ACCOUNTING PERSONNEL

By: Charles L. Savage, St. Francis College

Published in The Controller, September 1957

Attracting properly qualified personnel into private acccounting has become a real problem. Many feel that the colleges place such emphasis on public accounting that students are encouraged to think of it as first choice and private accounting as definitely second. This impression is not true, but has become current partly because public accounting firms work closely with the colleges on apprenticeship training courses. Private accounting organizations have only recently started such a program.

The author of this article describes the program prepared by the Controllers Institute and the setting up of such a program at Adelphi College. Attracting the right people into private accounting is important to business and is difficult. A good internship program planned with the cooperation of the colleges provides an excellent opportunity to meet this situation.

Subject: NEVER OVERESTIMATE THE POWER OF A COMPUTER

By: Ralph F. Lewis, Partner, Arthur Young & Company

Published in Harvard Business Review, September-October 1957

If one were to pick a single postwar development in office work as outstanding, it is almost certain that the choice would be the electronic computer. Installations have now reached the point in number and time where it becomes possible "to look at the field with perspective and to distinguish fact from fancy."

In this article, Mr. Lewis takes a down-to-earth look at computers—the reasons for their installation (one of those given is to keep up with the Joneses)—the approach to the installation— and the actual cost savings. It is brought out that savings are relative and that much may be saved through improvement of present inefficient operations.

"Despite the ballyhoo that has been given computer systems . . . and . . . the undeniable future usefulness of the computer as a management tool, there are very few computer systems in use today which could be judged as economic from any standpoint."

Of particular interest is the list of "Don'ts" at the close of the article. They give anyone considering on planning for a computer valuable indicators which lead to the crucial question—"will this move (the installation of a computer) add to the company's profits?"

Subject: ACCOUNTING AND REPORTING STANDARDS FOR CORPORATE FINANCIAL STATEMENTS

By: American Accounting Association

This booklet is the latest publication in a continuing project of the American Accounting Association, which began with the issuance in 1936 of a "Tentative Statement of Accounting Principles Affecting Corporate Reports." Subsequent revisions were issued in 1941 and 1948. Since the 1948 revision, a Committee on Concepts and Standards Underlying Corporate Financial Statements has issued supplementary statements on such topics as Reserves and Retained Income, Price Level Changes and Accounting Corrections.

The booklet includes all of the original and supplementary statements together with the present revision. In general, the present statement is concerned with underlying philosophy and concepts pertaining to the accumulation and communication of the results of corporate activities in financial terms. Separate sections are devoted to Underlying Concepts, Assets, Income Determination, Equities and Standards of Disclosure.

American Accounting Association
Professor Carson Cox, Secretary-Treasurer
College of Commerce and Administration
Ohio State University
Columbus 10, Ohio
Price $.50

Subject: LISTENING TO PEOPLE

By: Ralph G. Nichols, University of Minnesota
Leonard A. Stevens, Management Development Associates

Published in Harvard Business Review, September-October 1957

True communication is a two-way street; for every talker there must be a listener. In this article the authors describe the gross lack that exists in the field of listening. Unless there can be real exchange and acceptance of ideas, there is no real listening.

From this thesis, the authors go on to analyze the difficulties which hamper effective listening and proceed to describe how these may be overcome. In the conclusion are described 14 steps which may be used in developing an awareness of the real problems of listening and in improving listening ability.

Subject: MEN, MESSAGES AND MEANS

By: W. C. Meyer, Procter and Gamble Company

Published in Systems and Procedures, August 1957

Effective communications are a "must" in any business. The author of this article sets forth basic qualifications for the men, messages and means needed to maintain the proper flow of communications. The man should be selfless, intelligently dependent on others, and have clear objectives and constructive imagination. Messages must be actually needed, well timed, and accurate. The means should be judged for calculated risk, economy of effort, and flexibility. In the interest of maintaining an optimum flow of communications, the author recommends elimination of many normal but unnecessary systems of paper work. Without qualified men making clear reports with the most effective means, a business cannot be operated efficiently.

Subject: EFFECTIVE SYSTEMS THROUGH LONG-RANGE PLANNING

By: Gerald P. Grant and Robert E. Sellers, Marathon Corp.

Published in Systems and Procedures, August 1957

A growing company must have long-range planning and flexibility in its systems to keep up with its changing needs. Too many systems are too rigid, and fail to provide for new developments and elimination of outmoded practices. The only way to have effective systems is to have long-range planning, with provision for "brush fighting" built in.

The authors of this article outline cases where long-range planning has been very profitable, showing the scope and elasticity of such planning. A particularly interesting feature of this article is the "Long Range Planning Systems Questionnaire," which could easily be adapted to any type of business. Special questionnaires to narrow the scope of the main one are suggested, and a case using these questionnaires is discussed.

Subject: THE ARMY'S INTERNAL AUDIT PROGRAM

By: James A. Robbins, Chief—Internal Audit Division, Army Audit Agency

Published in The Federal Accountant, September 1957

This article is interesting in that it describes how internal auditing in the Army has developed in very much the same manner as in industry. Until comparatively recent years, Army internal auditing was confined to an account-type audit which gave little attention to interrelationships among activities and operations.

In 1954, a plan of making complete audits of all activities in each single installation was introduced. This was supplemented in 1956 by "vertical" audits, in which a single function is examined simultaneously at a number of installations.

In addition, the author describes the organization of the Army Audit Agency and the general operation of the audit program.

Subject: SAMPLING TECHNIQUES IN ACCOUNTING

By: Robert M. Trueblood and Richard M. Cyert

Although much has been written about the application of statistics to accounting, there have been few examples of such application.

This book presents many case studies of the application of statistical sampling to business operations. Explanation of the concept of statistical sampling is in non-technical terms, and evaluation of the movement is made in terms of both accounting and auditing practice.

Prentice-Hall, Inc.
70 Fifth Avenue
New York 11, N. Y.
Price $7.50 211 pages

Subject: WHOLE-DOLLAR ACCOUNTING

By: Controllership Foundation, Inc.

The concept of whole-dollar accounting has been receiving increasing study by financial executives because of increasing cost pressures. This book is the result of a study made of the subject by the Controllership Foundation.

The first chapter of the book is an analysis of the subject plus an appraisal of the study by the Foundation, a summary of advantages and disadvantages, and general comments. Following this chapter are case histories of thirteen companies which were selected to include large, medium, and small organizations, varying degrees of experience with whole-dollar accounting, and differing setups of accounting operations.

Controllership Foundation, Inc.
2 Park Avenue
New York 16, N. Y.
Price $7.50 335 pages

EMPLOYMENT SECTION

This employment section is offered as a service to members and others who may be seeking employees or who may be interested in new employment. All replies should be addressed to the advertiser—if the name is given—or addressed to The Institute of Internal Auditors, 120 Wall Street, New York 5, N. Y., with reference to the Box "E" number. Space rate on request.

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